

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 497.—Vol. XV.]

LONDON: SATURDAY, MARCH 1, 1845.

[PRICE 6D.]

POSTPONEMENT OF SALES.
MESSRS. FULLER AND MARSH respectfully announce, that the COMMITTEE of the CARDIFF UNITED MINING COMPANY have determined on POSTPONING the SALE of the SEVERAL MINES, advertised to take place at the Mart, on Thursday next, until THURSDAY, April 10, 1845.
Also the DULVERTON CHAPEL AND SILK MILLS, the SALE of which was advertised for Thursday next, and is also POSTPONED until the above date, in consequence of the intended repeal of the Auction Duties.

SHARES.—TO BE SOLD, BY PUBLIC AUCTION, by Mr. GEORGE CARNE, at the Mart, Bedford-street, Plymouth, on Monday, 3d of March, 1845, at six o'clock in the evening, SHARES in the following valuable MINING, RAILWAY, and BANKING COMPANIES:

1 Share in Wheel Horse	5 Shares in Wheel Hooper Caradon
1 " " West Basset	1 " " Wheel Anderson
1 " " West Henry	3 " " St. Austell Consols
1 " " Wheel St. Andrew	1 " " Caradon Vale
1 " " Devon and Cornwall Banking	1 " " Wheel Elizabeth
1 " " Company	1 " " Wheel Mary
30 " " Harrowbarrow Consols	3 " " Comb Down
30 " " Harrowbarrow Old Mine	5 " " Wheel Launceston
5 " " Liskeard and Caradon Railway	1 " " Crown Dale
2 " " Wheel St. Cleer	1 " " Wheel Halwell
1 " " Wheel Salisbury	4 " " Wheel Tolgus
10 " " The Cardon United Mines	3 " " Wheel Mary Ann
1 " " The Maiden Lady	2 " " Wheel Norris
1 " " Wheel Gill	5 " " Grose Delabole Slate Quarry
1 " " The Cardon Mines	1 " " Trevaas

GEORGE CARNE in submitting this valuable list of MINING, RAILWAY, and BANK SHARES to the public, feels that it would be an abortive attempt, in the prescribed limits of an advertisement, to give any thing like a descriptive statement of so many lots. Many of these investments will be recognised as old favourites, and need no remark; but there are others, such as the HARROWBARROW OLD MINE and CONSOLS, which at this moment promise the most brilliant results, and are, from the fact of their having been worked by private adventurers, but very little known. G. C. will, however, at once prepare a full descriptive catalogue, which will be ready for delivery on Wednesday, the 28th February inst.; in the meanwhile particulars may be known at the Auction Mart.
The Auction Mart, Bedford-street, Feb. 21, 1845.

TO ENGINEERS, FOUNDERS, MACHINE MAKERS, STEAM-SHIP BUILDERS, RAILWAY CONTRACTORS, AND OTHERS.
PREMISES, MACHINERY, AND TOOLS.

There will be OFFERED FOR SALE, BY PUBLIC AUCTION, within the Society of Advocates' Buildings, in Aberdeen, upon Tuesday, the 11th of March, at Two o'clock afternoon, at the UPSET PRICE of £9000, the extensive and valuable MANUFACTORY for the CONSTRUCTION of STEAM-ENGINES, BOILERS, General Machinery, Chain Cables, Anchors, Foundry Goods, Forged Goods, and General Blacksmith Work, well known as the FOOTDEE IRON-WORKS OF ABERDEEN.

In the occupation of Messrs. John Duffus and Co.; together with the MACHINERY and TOOLS.—These works occupy nearly four acres of ground, at a very moderate fee duty, or ground rent; and are situated at Footdee, in the populous city of Aberdeen, within 300 yards of the harbour.

The engines, boilers, and machinery of several of the large class of steam-ships have been wholly constructed and fitted up at these works, which afford unusual facilities in that branch of business, and such as exist in few other establishments in the United Kingdom. The foreign and coasting trade of the port of Aberdeen is very extensive, and has rapidly increased during the last several years; whilst the steam trade to London, Hull, Leeds, Liverpool, &c., is carried on to a very considerable extent.

To a party desirous of engaging in the building and equipping of steam or sailing vessels, the construction and repairing of steam-engines, sugar-mills, rails and railway furnaces, and general machinery, these works, from their local situation and peculiar facilities within themselves, will be found to be particularly well adapted.

The whole of the buildings are substantial, commodious, and suitable for the respective trades carried on within them. The machinery is of the first class, and in excellent order.—The whole having been erected at considerable expense.

There are included in the plant now offered for sale, Three steam-engines, of 10, 16, and 8-horse power respectively; the shafting connected therewith; cupolas, drying stoves, and similar kind to the foundry shops; anvil forges, and whole tools upon the premises.

In the meantime the works are in full and active operation, with a long-established and valuable connection; and, from the establishment of a new gas work, projected railways in the neighbourhood, harbour improvements, and other causes, there is every prospect of a brisk demand for the production of business for a long time to come.

The tools have been examined and valued by competent valuers from Glasgow, and the inventory and valuation will be exhibited to inquirers who may desire to see the same.

Should the premises not be sold, the machinery and tools, or portions thereof, may be separately disposed of, if suitable offers are made, or by valuation; and the premises, which are capable of being adapted to various purposes, may also be divided into lots, to meet the views of intending purchasers.

A plan and specification of the premises have been printed, and may, with all particulars and further information on the subject, be had upon application to Messrs. Johnston, Farquhar, and Leach, solicitors, London; Messrs. Jopp and Johnston, W.S., Edinburgh; or Messrs. Jopp and Shand, advocates, Aberdeen, in whose hands the title deeds of the premises are.

MINING MATERIALS.—TO BE SOLD, BY PUBLIC AUCTION, on Tuesday, the 13th day of March, 1845, at the IVY BRIDGE CONSOLS MINE, near the parish of Devon, by Messrs. SKARDON and SON, the following very valuable MINING MATERIALS:—

A WATER WHEEL, 24 feet diameter, 10 feet 3 inches breast, with cast-iron rings, sockets, and cylinder cranks; an 18 feet diameter WATER WHEEL, 9 feet 8 inches breast, with drawing machine, drum, and one crusher attached; a capstan, with oak axle and cast-iron sockets; shears, with pulleys and brasses; two bobs, with gudgeons, chains, brasses, and straps complete; 190 fathoms of horizontal rods, 24-inch iron rod; 190 fathoms ditto, 2-inch, square-iron; a large number of rod pulleys, and stands and brasses; two sweep rods, loggersheads, brasses, connecting checks, pins, and chains; two pendulums and wheel pin frames; three balance-bobs, with gudgeons, brasses, saddles, and sweep rods; sixty fathoms of 12-inch capstan rope; a large bell and stand, a horse wheel, whin, and other kibbles.

10 9-feet 10-inch pumps	2 7-feet 10-inch windbores
14 9-feet 12-inch "	1 10-feet 10-inch "
11 9-feet 12-inch "	1 7-feet 9-inch "
1 6-feet 12-inch "	1 8-feet 7-inch "
1 8-feet 12-inch "	1 7-feet 7-inch "
1 9-feet 12-inch "	2 Wood
13 9-feet 10-inch "	1 8-feet 12-inch working barrel
1 4-feet 10-inch "	2 8-feet 9-inch "
6 9-feet 9-inch "	1 9-feet 8-inch "
1 3-feet 9-inch "	2 8-feet 6-inch "
13 9-feet 12-inch meshing pieces	1 9-feet 15-inch plunger-pole, with case, stuffing-box, and gland
1 15-inch H-piece	1 9-feet 11-inch plunger-pole, with case, stuffing-box, and gland
1 7-inch "	1 9-feet 7-inch plunger-pole, with case, stuffing-box, and gland
5 5-feet 15-inch clack door-piece	1 7-feet 6-inch plunger-pole, with case, stuffing-box, and gland
3 4-feet 10-inch "	1 7-feet 6-inch plunger-pole, with case, stuffing-box, and gland
1 6-feet 10-inch "	11 9-feet 3-inch iron pins, and gland
2 6-feet 10-inch bucket door-pieces	6 short pieces, 3-inch do.
4 4-feet 7-inch "	

Wood matching pieces, of various diameters, shaft and whin pulleys; about 90 fathoms of half-inch whin chain; 25 fathoms 6-inch rope, nearly new, with a quantity of various sizes; stamps, axle, and frame, three stampheads, 20 pairs rod flange bolts, two pairs of connecting checks, with pins and brasses; a quantity of rod and plate bolts, of various sizes; a quantity of staples and glands, four wrought-iron set-offs, two gins, double and single blocks, screw stocks, with screw tops and plates; 56 fathoms of 10-inch, 9-inch, and 8-inch Memel and Norway shaft-ropes; a quantity of Norway and other timber, of various dimensions; 37 fathoms of 12-inch wrought-iron bucket-rods, with pump boxes and valves, shaft rollers and swords, two pairs of chain bevels, a grinding stone, beams, scales, and weights, a circular copper bottom sieve, and a square machine copper bottom ditto; a quantity of new and old iron, rods, doors, and windows of carpenters' and smiths' shops, and counting-house and material-house; sieves of various descriptions, with bucking horns, hatches, knives, and harrows; a 26-inch smith's bellows, an anvil and vice, and various other smiths' and miners' tools; a quantity of old and new brass, and various other useful materials, too numerous to mention.—The materials are in excellent condition, and a considerable portion of them new.

Further particulars may be obtained from Captain Cheke, Filham, Ivy-bridge; or from Mr. Collon, 27, Gibsons-street, Plymouth, who is authorised to settle all accounts, and to whom all persons having demands on the mine will please to send the particulars of their claims.—Dated Feb. 11, 1845.

Sale to commence each day at Eleven o'clock.

SLATE QUARRIES FOR SALE.—TO CAPITALISTS.
TO BE PEREMPTORILY SOLD, BY AUCTION, in the month of APRIL next, by order of the First Mortgagee, under a power of sale, unless previously disposed of by private contract, of which due notice will be given, ALL THOSE VERY VALUABLE AND EXTENSIVE SLATE QUARRIES.

known as the WEST DELABOLE and TREGAVERN QUARRIES, situate in the parishes of Endellon and Tintagel, in the county of CORNWALL.

This very eligible property possesses immense facilities for producing and shipping every description of slate, offering at the same time a safe and profitable investment, and may be viewed on application to Mr. Langford, of Boscawen, Cornwall; and plans of the quarries may be seen at the office of Messrs. Fitch and Neale, 57, Lincoln's Inn-fields.

London: Feb. 8, 1845.
Detailed particulars will be advertised previously to the sale.

A PUBLIC MEETING of the Lords of, and Adventurers in, TIN MINES in CORNWALL, held at Bodruth, 25th February, 1845, the following RESOLUTIONS were unanimously adopted:—

Moved by Mr. R. Taylor, and seconded by Mr. E. Ley.
That the Tin Mines of Cornwall have had for some time struggle against an unusually low price for their produce, which has, within the last three years, caused a diminution of the quantity of tin raised to the extent of 1000 tons per annum.

Moved by Mr. Batten, and seconded by Mr. S. Davey.
That, just at the time when a partial improvement in the price had raised the hopes of the miners, and would undoubtedly, in ordinary circumstances, cause new mines to be set at work, they are met by the expressed intention of the Government to allow the importation of foreign ore, to be smelted for home consumption, free of duty—a measure which will greatly tend to quench the spirit of tin mining in Cornwall.

Moved by Mr. A. Fox, and seconded by Mr. J. R. Millet.
That, since the reduction of the duty on foreign tin and tin ore, in 1842, no complaints have been made by the consumers of tin; and that there is no reason to suppose that the Cornish Mines, and that they be requested to confer with the Government, and to take such measures as shall appear to them proper to prevent the proposed alteration being adopted.

Moved by Mr. R. Pearce, and seconded by Mr. C. K. Vigers.
That the advantage to Great Britain from smelting the largest quantity of tin ore that would probably be imported, would be (with respect to the workmen employed) too trifling, to be set against the failure of a single mine in Cornwall; the aggregate number of men employed in smelting the whole tin produce of the county being only about sixty.

Moved by Mr. R. B. Michell, and seconded by Mr. Silvester.
That the foreign tin works are (we believe) wrought entirely by foreign capital, principally by the Dutch Government; it is, therefore, on every ground, highly impolitic to throw out a temptation to a foreign government, or foreign miners, to increase the production of an article that must come into the market here against that of our own country.

Moved by Mr. W. Williams, and seconded by Captain W. Francis.
That these resolutions be sent to the committees in London, for guarding the interests of the Cornish Mines, and that they be requested to confer with the Government, and to take such measures as shall appear to them proper to prevent the proposed alteration being adopted.

Moved by Mr. Borlase, and seconded by Mr. R. V. Davy.
That a committee, consisting of the following gentlemen, be appointed to conduct the application to Government.

Mr. Joseph Carne	Mr. T. S. Bolitho
Mr. Batten	Mr. Batten
Mr. J. Randle	Mr. A. Fox
Mr. M. Williams	Mr. Ley
Mr. R. Taylor	Mr. Stephen Davey

and that they be empowered to depute three of their number, Mr. Carne, Mr. T. S. Bolitho, and Mr. M. Williams, to proceed to London, to assist the county members with their advice.

Resolved, That a farthing in the pound be raised on all the tin ores delivered at the smelting-houses during the next three months, to defray the expenses of the deputation; and that Mr. Batten and Mr. Ley be requested to act as treasurers.

That the foregoing resolutions be published in the county papers.
That the thanks of this meeting be presented to our worthy chairman for his able conduct on this occasion, and for the zeal which he has always displayed in protecting the interests of this county.
(Signed) J. T. TREFRY, Chairman.

BRAZILIAN COMPANY.—The directors having resolved to make a CALL of ONE POUND per share on the CATA BRANCA SHARES, the holders are requested to PAY the same at the office of the company, No. 6, Broad-street-buildings, on Thursday, Friday, or Saturday, the 13th, 14th, and 15th of March, between the hours of Eleven and Three; they are requested to send their vouchers at the same time, that the instalment may be endorsed thereon. All shares on which the call may not be paid, are liable to forfeiture.

A report of the directors may be had at the office of the company.
London, Feb. 27, 1845.

CONSOLIDATED TRETOIL MINING COMPANY.—The directors hereby give notice, that a SPECIAL GENERAL MEETING of the shareholders will be HELD at the offices of the company, 6, St. Mildred's-church, Poultry, on Wednesday, the 5th of March, at Two o'clock P.M. precisely, in order to fill up the vacancy in the direction, caused by the death of Mr. Heppell, and to complete the number of directors, in conformity with the rules and regulations of the company.
February 20, 1845.

COPPER AND TIN MINE, west of TRURO.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, the MAJORITY OF SHARES in a very valuable MINE, of the above description, sampling about 300 tons of copper ore, and raising about £300 worth of tin, per month. The mine is in the most efficient state of working, with machinery, of the value, at least of £5000; the dues are 1-20th, and the term of lease eighteen years unexpired. None but parties of respectability, with their name and address, will be treated with, and every satisfaction assigned for the disposal thereof.—Address "B. B." West of Truro, Cornwall.

N.B.—This advertisement will not be repeated.
THE GENERAL HALF-YEARLY MEETING OF THE WEST CORN MINING COMPANY will be HELD at the George and Vulture Tavern, Cornhill, in the city of London, on Thursday, the 6th day of March next, at One o'clock in the afternoon precisely, on the general business of the company, and also for the election of two directors and one auditor; and take Notice, that every proprietor intending to become a candidate to fill the office of director or auditor, must, within fourteen days from the time of the insertion of this advertisement, signify by some writing under his hand, stating the place of his residence and addition (such writing to be left within the same fourteen days at the office of the company, 39, Coleman-street, in the city of London), his intention so to become a candidate.

By order of the board,
T. M. SHADWELL, Secretary.
London, Feb. 4, 1845.

KELSTON BRASS AND COPPER MILLS, situate on the navigable part of the River Avon, between Bath and Bristol.—TO BE LET, with possession on the 1st day of March next, the ABOVE MILLS, commanding water-power to a very great extent, and with TEN substantial houses attached, for the residence of the miller, and the machinery on the premises, some of which has been recently put in, may be taken at a valuation; but this is optional with the incoming tenant.

The mills are easily convertible to any other purpose, and the water-power is sufficient to be applied to two or more distinct objects.—There is a good wharf or landing place attached, distant six miles from Bristol and about the same from Bath, and the premises are approached by good roads.

For further particulars apply to Messrs. Goldney and Fellowes, solicitors, Chippingham, or Mr. William Jones, of Kelston.

THE PATENT GALVANISED IRON COMPANY beg leave to announce to the public, that they are prepared to SUPPLY ROOFING, SHIP SHEATHING, and FASTENINGS, CHAINS, and the endless variety of articles to which iron, not subject to rust, may be applied.—Testimonials may be seen by application at the office, 3, Mansion House-place, London.

CAUTION.—THE PATENT GALVANISED IRON COMPANY having ascertained that certain PARTIES are INFRINGING their PATENT by the MANUFACTURE and SALE of a SPURIOUS and COUNTERFEIT ARTICLE, to the injury of the company and the detriment of the public, hereby give NOTICE, that this COMPANY have the SOLE PRIVILEGE of manufacturing and selling IRON COATED WITH ZINC, commonly called "Galvanised Iron," and that they will inflict the utmost PENALTIES of the law upon all PERSONS MANUFACTURING or SELLING the same without their authority, as well as upon all persons buying or using any Galvanised Iron not manufactured by them, or sold by their authority.

3, Mansion House-place, London, Jan. 24, 1845.

MOREWOOD AND ROGER'S PATENT METAL.—This article was at first sold under the name of Galvanised Tin Plates, but the patentees finding that the public, in some instances, overlooking the word Tin, confounded the article with Galvanised Iron, and that the character of their metal has thereby sustained injury, are desirous of giving it a name so distinctive as to prevent such mistakes, and consequent disappointment to purchasers, in future. They, therefore, respectfully request purchasers to inquire for Morewood and Roger's Patent Metal. In order to enable the public readily and at first sight to distinguish between the two metals, it may be well to inform them, that Galvanised Iron has a plain zinc-like appearance, while M. and R.'s Patent Metal has a smooth crystalline surface.

MOREWOOD'S AND ROGER'S PATENT METAL.
Patronised by the Admiralty and the Honourable Board of Ordnance, being extensively used in her Majesty's Dockyards, and the Tower, the extensive naval fire proof warehouses of the Liverpool Docks, and elsewhere, for every variety of roofing, and other purposes, where a strong, light, cheap, and durable material is required.

It has been found by experience, that this article is beyond all comparison superior to zinc; possessing, as it does, all the advantages arising from the strength and firmness of iron, combined with perfect immunity from rust; whilst it is free from the very serious objection which applies to zinc—viz., its contraction and expansion, consequent upon every change of temperature, and from which circumstances leakage must of course result.

This material is not likely to be destroyed by fire, as in the case with zinc and lead, which melt and run down, thus freely admitting fresh air to the fire, and causing it to burn more fiercely. It is, therefore, obviously well adapted for all the purposes above-named, and most importantly so, when there is the possibility of fire. It is also peculiarly suitable for chimney-tops, gutters, spouting, and out-door work generally, possessing the strength of iron, without its liability to corrosion. It is by far the most economical metal roofing that can be obtained, in consequence of its strength, as it may be laid without boards, and upon the lightest rafters.

This mode of preserving metal from rust does not only apply to sheet-iron, but also to unmanufactured iron in any form, as bolts, nuts, hinges, nails, &c., &c.

For full particulars apply to S. Holland, 34, Gracechurch-street.

RYE AND THOMAS, MINE AGENTS AND DEALERS IN STOCKS, RAILWAY AND OTHER SHARES, 80, OLD BROAD-STREET, LONDON.

CHEAP IRONSTONE AND ANTHRACITE COAL.—TO BE SOLD, the LEASE, for a long term of years, of an ESTATE, close to Port, with which there is a canal communication—at 8d. per ton tonnage. This estate contains all the BEDS of ANTHRACITE COAL in the CWM AMMON BASIN. The cost of transit from pit to port is not one-third of that by the Cwm Ammon Railway—the royalty of the coal is 8d. per ton. A tenant working the coal will be entitled to get numerous beds of the best ironstone, now laid dry by levels, free of royalty, and applicable to making iron at a cheaper cost than it can be made any where else in the kingdom. The South Wales Railway to Fishguard will pass this property.

For further particulars address W. R. Jones, Esq., Loughor, Swansea.

STAFFORDSHIRE.
COAL AND IRONSTONE MINES.—TO BE SOLD, BY AUCTION, in the month of MAY next, by Mr. CORBETT, auctioneer, Bilston, the valuable FREEHOLD ESTATE and COLLIERIES, situated at Darlaston-green, adjoining to the Birmingham Canal and the Grand Junction Railway, containing about sixty acres; and also the MINES and MINERALS under the same; together with the ENGINES, PITS, the very complete CEMENT-WORKS, FREESTONE QUARRY and MACHINERY thereon.

N.B.—The Birmingham Coal Company are now sinking a shaft to prove the Ironstone Mine, especially the Blue Limestone, in the upper part of the estate—the lower part having already been sufficiently proved by the practical working of the same.

For further information apply to Mr. Rawlins, solicitor; Messrs. Tyndall and Son, solicitors; Mr. Lawrence, at the Birmingham Coal Company's Offices, all of Birmingham; Messrs. Cope and Son, mine agents, West Bromwich; or to the auctioneer, Bilston.

IMPORTANT TO ENGINEERS AND OTHERS ENGAGED WITH WORK FOR RAILWAYS, GAS, AND WATER WORKS, &c.
PARK IRON-WORKS, SHEFFIELD.

The MACHINERY, TOOLS, STOCK, &c., of these justly celebrated works to be DISPOSED OF, with early possession. The foundry is capable of turning out 100 tons of work per week, and the engineering department a considerable quantity of every description of work for railways, &c. The rent of the buildings, including a very good house for a principal or manager, is under £200 per year. Water conveyance to all parts of the world comes into the works, which are also within a shilling per ton delivery to a very important railway station.

To view the same, and for other particulars, apply to Mr. W. Johnson, on the premises at 28, Moorgate-street, London; or at Brynbo Iron-Works, near Wrexham, on and after the 14th of February.

SUPERINTENDENT.—WANTED, a PERSON to take the SUPERINTENDENCE of a RAILWAY and DOCK, in Carmarthenshire. He must be able, practically, to set out a new line, take levels, and make plans and sections of a railway; and also conversant with the locomotive department, gear, &c., connected with the same; he will have under his general superintendence the business of the railway and dock, and must have a knowledge of accounts and of reports to the board of directors. The candidate must be able to produce unexceptionable testimonials as to character, ability, &c., and to find security for £1000. The salary will not exceed £250 per annum.

Applications to be made by letter only, addressed to Mr. John Bigg, secretary to the Llanelly Railway and Dock Company, Old Jewry Chambers, London, not later than Wednesday, the 12th of March next.

THE ELECTRIC TELEGRAPH.—COOKE AND WHEATSTONE PATENT.
The ELECTRIC TELEGRAPH has been adopted on the following LINES:—

By ORDER of the LORDS of the ADMIRALTY, on the South-Western Railway, as a GOVERNMENT TELEGRAPH from the ADMIRALTY, Whitehall, to PORTSMOUTH, above NINETY MILES.

On the same line, as a Commercial Telegraph from Nine Elms to the Port of Southampton, 77 miles—with a branch to Gosport, 15 miles.

On the London and Blackwall Railway.
Great Western Railway, from London to Slough, 18 miles—the Windsor Telegraph.
Yarmouth and Norwich Railway, a "Single Way," 20 miles.

London and Dover Railway, from Tunbridge to Maidstone, a "Single Way," 15 miles.
Part of the Oldham Branch Railway.
Part of the Leeds and Manchester Railway.

Part of the Edinburgh and Glasgow Railway.
The Dalkey (atmospheric) Branch of the Dublin and Kingstown Railway.
London and Birmingham Railway—viz., from Northampton to Peterborough—a "Single Line," 47 miles.

In addition to the above, the Telegraph is about to be laid down on several "single lines" in different parts of England, Scotland, and Ireland.

Mr. Cooke is prepared to grant licences for the use or erection of the Telegraph for entire districts of country, where the boundary can be accurately defined.

Mr. Cooke will also undertake to erect a Telegraph in any part of the United Kingdom for a fixed amount.

For further particulars apply to W. Fothergill Cooke, Esq., Kidbrooke, Blackheath; or to Robert Wilson, Esq., solicitor, 1, Copthall-buildings, London.

RAILWAY WHEELS.—Two years' very extensive experience has demonstrated that T. BANKS'S PATENT MODE of RENEWING the WORKING SURFACE of WHEEL TIRES, with STEEL, effects a SAVING OF FIFTY PER CENT. of the expense of railway wheel tires above any other plan hitherto used.

For TERMS of LICENSE for England, Scotland, and Ireland, apply to T. BANKS, ENGINEER, GERMAN-STREET, MANCHESTER.

The following firms have taken Licenses to Steel Wheels in their respective localities:—
Messrs. Robert Stephenson, and Co., engineers, Newcastle-on-Tyne.
Swayne and Bosill, engineers, Millwall, Poplar, London.
Kitson, Thompson, and Co., engineers, Leeds.

TO RAILWAY COMPANIES, ENGINEERS, AND MACHINISTS.—FENTON'S ANTI-FRICTION METAL.—CHEAP SUBSTITUTE FOR BRASS in the STEPS and BEARINGS of STEAM-ENGINES and MACHINERY.—possesses the following ADVANTAGES compared with that metal:—Increased durability, diminished friction, and consequent saving in consumption of oil, cheapness in first cost, not only in price, but also by a less specific gravity. It has been in use for some time on many of the principal lines of railway in the country.

Ingots, at 66s. per cwt., may be obtained from the patentees.
FENTON and BOTT, 5, LOWER MOSELEY-STREET, Manchester.

TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, AND OTHERS REQUIRING FINE GREASE FOR MACHINERY AXLES of every description.—JOSEPH FENCIVAL'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shown of great excellence.—Samples forwarded on application at the manufactory, Green-shed, Wellington-street, Blackfriars-road, London.

ANDREW SMITH'S PATENT WIRE ROPE.
FOR MINING, RAILWAY, and SHIPPING PURPOSES.—The Royal yacht VICTORIA and ALBERT, PENLOPE, VIRAGO, HERMES, and several other ships in the Royal Navy, as well as the Merchants' Service, have been FITTED WITH ANDREW SMITH'S PATENT WIRE ROPE; it is about half the size and weight of hempen rope and one-third cheaper.—For particulars apply to A. Smith, 69, Princes-street, Leicester-square; White Lion-court, Cornhill; or at the works, Millwall, Poplar, London.

SIR W. BURNETT'S PATENT.—THE CHEAPEST AND BEST PROCESS for the PRESERVATION of TIMBER, CANVAS, CORDAGE, COTTON, WOOLLEN, &c.—LICENSES GRANTED to NOBLES and GENTLEMEN to use the preparation; and to others, for the purposes of trade, on advantageous terms.

HYDRAULIC APPARATUS AND TANKS.
For the expeditious preparation of the above materials, at the principal station, MILLWALL, POPLAR, nearly opposite Greenwich.

Numerous SPECIMENS and TESTIMONIALS may be seen, and every information obtained, at the office, 53, King William street, London-bridge.

SEYSEL ASPHALTE COMPANY.—"CLARIDGE'S" PATENT.—Established 1838.

This Asphalt is a bituminous limestone, obtained from an inexhaustible mine at Pyramont, in the Jura mountains. Previously to its introduction into this country, in 1838, the material had been used for many years in France, and, from its great utility, was extensively patronised by the Government of that country.

Among the various uses to which it can be applied, the following may be mentioned:—For foot-pavements, public and others; in the carriage approach to mansions, garden-walks, and terraces; the flooring of kitchens and other basement offices; also of coach-houses and stables, dog-kennels, barn-doors, cow-houses, pigsties, poultry-houses, tunnocks, and manholes. For roofing, covering of railroad and other arches, the lining of ground line of walls, to prevent damp rising (this application of the Asphalt of Seyssel is particularly recommended by the Commissioners of the Fine Arts), thereby rendering the basement stories in the worst situations both dry and warm. It is an excellent cement, as applied to docks, breakwaters, or walls built for resistance to the encroachments of the sea. For lining of tanks, fish-ponds, and other hydraulic purposes.

I. FARRELL, Secretary.
Seyssel Asphalt Company's Works, "Claridge's Patent,"
Stamands Depot, London.

* * * MERCHANTS AND SHIPPERS SUPPLIED FOR EXPORTATION.
Books of Instructions for Use, may be had of all booksellers in town and country, or from the undersigned.

Law Intelligence.

PROJECTED COMPANIES—LIABILITY OF DIRECTORS.

DEBNEY AND ANOTHER v. BERGONZI AND OGLE.—This was an action to recover the sum of £60 for work done, in 1843, to certain premises in High-street, Whitechapel, with the view of preparing them for occupation by a projected company for the distilling of British hollands; and the question was, whether the defendants, or either of them, could be made liable for the debt of the company, by reason of their connection therewith as directors. This question occupied the court a great part of two days, but the principal facts may be very succinctly stated.—In the beginning of 1843 the defendants, Sir J. Anderson, and a Mr. Cox, together with three other gentlemen, put forth a prospectus for the establishment of the "British Hollands Distillery Company," in which they figured as directors. This document bore one clause, to the effect, that no director or shareholder should be liable for more than his subscribed capital, and that no order to any tradesman should be given except on that condition. At first the establishment was located in Old Broad-street, where the defendants attended at the weekly meetings; but the premises in Whitechapel being taken soon afterwards, an order was given by "the board," on the 2d of August, to one Goldie, to "set them in order." That order was by him transmitted, as he swore, to the plaintiffs, with an intimation of the names in the direction, including those of the defendants, as the parties responsible for payment, and the work was begun on the 4th of August, and continued for several weeks, in respect of which this action was brought. Towards December the company broke up, and various claims were made against the directors, for some of which bills were given, after a meeting of all the gentlemen filling that office. Soon afterwards the old company was broken up, and a new one started by the defendant Ogle and others, on the understanding that the interest of the former should be paid off. In answer to the evidence of the plaintiffs, which ranged over a very wide field, the defendants put into the box their secretary, whose books showed that Mr. Ogle had resigned the direction on the 5th of July, and Mr. Bergonzi just before the order was given for the execution of this work, and whose impression was that Mr. Goldie knew that fact when the order was given to him by the board.

The CHIEF BARON proceeded, at great length, to sum up the evidence on both sides to the jury, leaving it to them to say whether the defendants were either partners in this company at the time the work had been done by the plaintiffs, or whether they had either held themselves out as such by their acts to the world and to the plaintiffs, or had allowed others to do so, by issuing prospectuses, and other acts connecting their names with the prosecution of the speculation. If Mr. Goldie was correct in his assertion that he did not know any thing of the defendants having resigned, and that he had given their names to the plaintiffs with the other directors, the case would turn against the defendants; but if he was incorrect, then the plaintiffs' claim would rest on the prospectuses, the peculiar clause in which would seem to put an end to their case altogether, as no such order was given as is there pointed out.

The jury returned a verdict for the plaintiffs—Damages, £60.

IMPROVED SYSTEM OF VENTILATION.—There has lately been deposited in the Royal Polytechnic Institution a series of models, termed "deflecting roofs, or cowls," illustrative of an invention which has been patented by Mr. Kite, coal merchant, with a view to a more perfect system of ventilation, and likewise a cure for smoky chimneys. The models are exceedingly simple, but truly philosophical, in their construction. The deflecting roof is intended to supersede the use of chimney-pots (the employment of which tends so much to destroy the beauty of our noblest buildings), and will form not only a preventive against smoke, but actually an ornament to the building. The roof consists merely of a number of *louveres*, or deflectors, which present their oblique surfaces to the wind, and are so arranged that, when the wind blows against them, it is deflected from its original course, and passes directly across the top of the fine, carrying with it a portion of the smoke and maintaining a partial vacuum in the roof. The models are explained daily by Mr. Phillips, the practical engineer to the institution, who shows, in a most clear manner, that, by Mr. Kite's invention, either an upward or downward current of air can be obtained while the wind is blowing in any direction—proving at once its perfect adaptation to the ventilation of ships and buildings generally; there are several peculiarities connected with the invention, which we recommend to the inspection of every person who may feel an interest in these matters. Since the attention of the legislature has been directed to the health of large towns, some disastrous results of inefficient ventilation have been brought to light, proving pretty clearly that the maximum of disease is owing to the vitiated and unchanged state of the air in the crowded apartments of the lower classes. The commissioners who have been appointed to examine the various witnesses, seem to be undecided as to the best mode of remedying this crying evil—let them examine Kite's ventilator, and we feel assured that its efficacy and simplicity will be at once apparent; and also its value to the royal and commercial navy, as, by its means, a most perfect ventilation can be managed through every part of the ship.

STREAM MARINE MAIL.—Our ingenious correspondent, Mr. A. T. J. Martin, of Penzance, has communicated to us the following curious plan for expediting navigation.—He considers that the maximum of speed on water has by no means been attained, and, to the furtherance of that object, makes his present suggestions. He proposes that a hollow hemisphere, or nautilus, with a rudder, but without a fixed keel, be made, of twenty or thirty feet diameter, and to float within a revolving paddle-wheel—the paddles to be semicircular plane (half) rings, one foot broad (that is to say, inner diameter 32 ft. and outer diameter 34 ft.). Such semi-rings to be fastened to two centres at each end of the diameter of the floating vessel—just like the meridians of longitude on a common globe. One circular ring to strengthen and stay the whole of the revolving planes, and to serve as a keel, being in a line with the rudder, which is a keel; such keel being somewhat like the equator between the poles of an ordinary terrestrial globe. Other stays, like the parallels of latitude, may, if necessary, be added; but it would, perhaps, be advisable to divide the water in this way as little as possible. He proposes sixteen as the number of such revolving circular ones—the arch, or circle, being invariably the strongest form into which matter can be wrought. The pressure on the centres of this revolving wheel on each side of the diameter, in the fore or aft direction, caused by the resistance of the water, would produce fore and aft motion of the floating vessel, ballasted with her engine, and in the usual way. The central funnel, or masts, would be fastened only at their ends to the revolving centres at the side of the semi-spherical ship. It is stated that there will be no reason why the water flowing aft should float the vessel in that direction, or in effect remain at a stand still, any more than with ordinary paddle-wheels. The lately-built Government steamer, *Phoenix*, draws 12 feet 9 inches fore, and 13 feet 9 inches aft, 260 horse-power—making 22.76 revolutions per minute, and the propeller 56.875 at 9.616 knots per hour. The wave pushed forward by high velocities on the common plane, prevents improvement in this respect; the highest wave of the above vessel, perhaps, be aft, and thus tend to increase the velocity of an engine, which might be used for pilotage or dispatches, with an awning, or half deck, to catch the dropping water or spray.

EXAMPLE FOR RAILWAYS.—They are warning the passenger cars on the railroad between New York and this city with hot water, in copper pipes along the floor and sides; these pipes proceed from a small boiler placed over the stove in each car—a capital invention.—*American paper.*

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Transactions of Scientific Bodies.

MEETINGS IN THE ENSUING WEEK.			
SOCIETY.	PLACE OF MEETING.	DAY.	HOURLY.
Medical and Chirurgical	55, Barnard-street	Tuesday	8 P.M.
Royal Asiatic	14, Orafon-street	Saturday	2 P.M.
Royal Entomological	17, Old Bond-street	Monday	8 P.M.
Chemical	Society of Arts, Adelphi	Monday	8 P.M.
Medical	Bolt-court, Fleet-street	Monday	8 P.M.
Linnean	25, Grafton-square	Tuesday	8 P.M.
Horological	31, Regent-street	Tuesday	8 P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Zoological	11, Hanover-square	Thursday	8 P.M.
Royal	Somerset House	Thursday	8 P.M.
Antiquaries	Somerset House	Thursday	8 P.M.
Royal Institution	Albany-street	Friday	8 P.M.
Botanical	Bedford-st., Covent-garden	Friday	8 P.M.
Royal Asiatic	Regent's-park	Saturday	4 P.M.
Westminster Medical	25, Sackville-street	Saturday	8 P.M.
Mathematical	Crispin-street, Spitalfields	Saturday	8 P.M.

GEOLOGICAL SOCIETY.

The anniversary meeting of this society was held at their apartments, at Somerset-house, on Friday, the 21st ult., the PRESIDENT (H. Warburton, Esq.) in the chair, when the Wollaston gold medal was presented to John Phillips, Esq., professor of geology, of Trinity College, Dublin, author of several esteemed works on the science, and nephew of Dr. Smith, one of the earliest geological observers which this country has produced, and who was the first recipient of the same honour. The residue of the Wollaston fund, amounting to about 20l., was awarded to Mr. Baine, of the Cape of Good Hope, to whom science is indebted for the discovery of some bi-dental reptiles, on whose singular structure Professor Owen has produced a memoir, replete with the ability which distinguishes the labours and the writings of this celebrated paleontologist.

The PRESIDENT incidentally mentioned that, in future, the medal in question would not be formed of gold, but of palladium, in honour of Dr. Wollaston, who was the discoverer of that metal. Mr. Warburton then proceeded to deliver his annual address, which will shortly be published, and resigned the chair, his term of presidency having expired, to Leonard Horner, Esq., his successor.

The society dined at six o'clock at the Crown and Anchor Tavern, LEONARD HORNER, Esq. (president), in the chair. Amongst those present we observed the Marquis of Northampton, Sir C. Lemon, Sir J. Johnstone, Sir H. T. de la Beche, Professors Buckland and Sedgwick, and many distinguished votaries of philosophy and science.

On the removal of the cloth, the PRESIDENT, after the usual routine of loyal toasts, proposed that of "The Geological Society." At no period since its commencement (he observed) had the society been in a more vigorous or successful condition, since, in addition to the old and tried veterans engaged in its cause, it possessed young and aspiring minds, who had devoted all their energies to its service. He then took a rapid but comprehensive view of its history. He would not boast himself, he said, of being one of the founders of the society, but he had early become one of its members; he had not, it was true, been present at its birth, but he had watched it from its birth, and observed with delight its progress to maturity and vigour. He had joined it not certainly before it had a name, but before it had a "local habitation;" for at first they met as a few friends of geological inquiry at a small room at the Freemason's Tavern, thence they adjourned to apartments in the Temple, whence they migrated to Lincoln's Inn-fields, and lastly to Somerset-house, apartments in which had been accorded to them by the liberality of government. During their career they had introduced some deviations from the received plan of other societies, which had been found extremely beneficial. Thus, they had given a social character to their meetings, and after the reading of grave and learned papers, had allowed a period for social intercourse and general conversation. They had also adopted the plan of changing their president every two years, and without impugning the method followed in other societies, where the president was chosen for life, he would say, on behalf of the Geological Society, that this plan of changing their chief officer had been found to work admirably well. Geology was a science of so extensive a nature as to admit the greatest possible variety of objects and pursuits, and as each successive president directed his attention to successive inquiries of interest, and was anxious to distinguish his period of office by the most strenuous efforts, it followed that new men produced new measures, and infused fresh life and vigour into the system.

The next toast was the "Health of the retiring president, H. Warburton, Esq.," on whom the CHAIRMAN passed a warm and well-merited eulogium. In the list of the original members of the Geological Society, consisting only of forty-two, the name of Warburton was to be seen; he next became the secretary of the society, and set an admirable example of diligence and industry to all future occupants of that post. Of late years he had been somewhat estranged from the society by other pursuits, but his heart had ever been with them, and his best and warmest feelings. When elected president, he had entered on the duties of that office with untiring zeal and discrimination to benefit the society to the utmost. At that precise period they had been a little profuse in expenditure, in publishing their works in a somewhat expensive form. He had proposed and carried out a plan of economy in this and other points, the effects of which were eminently beneficial. He had been not only the Premier, but the Chancellor of the Exchequer of their government—aye, and a most stern and inflexible functionary was he, whenever he feared leading the society in extravagant or needless expenditure. But, on the other hand, so kind, so liberal was his nature, that he was ever ready to promote and patronise any plan which really appeared fraught with advantage; often did he assist the society out of his own pocket, and in many cases when his name never appeared to the world. (Applause.) They would remember that, in earlier years, he was the friend of Wollaston, and when that enlightened philosopher proposed to bequeath that fund which bears his name, he was counselled and advised by his friend Mr. Warburton. During his period of office, by his judicious management, the society was completely free from debt, and they had now a good balance at their bankers (Hear). He would now withdraw from the society and its pursuits to those duties which claimed his attention as a legislator, yet, in spirit, he would be with them still, and often would he retire from the storms and billows of St. Stephen's to the quiet haven of philosophical and geological science. (Applause.)

Mr. WARBURTON acknowledged the honour in a feeling reply, in which he stated those plans of attention and economy which had formed the guides of his conduct during his career as president; and, congratulating the society on their choice of the individual who was elected next to fill the chair, he proposed the health of Leonard Horner Esq., his successor in office.

Mr. HORNER, in a reply replete with feeling, observed that when he reflected on the many eminent men who had filled the chair before him, he had felt disposed to decline the honour, but really the temptation of presiding over so distinguished a body was too powerful to be resisted. Human nature gave way to the inducement, and thus he became their president, and they must take him for better or for worse. To the society he was attached by the strongest possible ties—to it he owed many of the happiest hours of his life, and to it he owed the honour and the happiness of having Charles Lyell as his son-in-law. Very soon after he joined the society he became acquainted with Mr. Lyell, and learned to appreciate his high talents and his higher virtues. He knew him from their kindred taste for mineralogy and geology, and when Mr. Lyell chose to fancy the very choicest specimen in his cabinet to transfer it to his own, he had consented to such a transfer, though feeling aware of the value of the object, and all parties, he might add, had been happy in the arrangement. (Applause.)

Inasmuch as the science which bore the general name of geology, comprised, in fact, the study of all the natural sciences, including those of chemistry, mineralogy, botany, astronomy, and others, which were all cultivated by the parent scientific institutions of this country—the Royal Society, he should now propose the health of that distinguished body.

The Marquis of NORTHAMPTON, in an appropriate reply, acknowledged the tribute thus paid to the society of which he had the honour to be president.

The toast of "The Royal Geographical Society" was responded to by its distinguished president, R. L. MURCHISON, Esq., who, in a highly animated and feeling address, dwelt on the labours of foreign *savants* and philosophers, particularly in the department of geological science. The geologist and the philosopher, he observed, form truly a cosmopolite, and such men, rising above the narrow limits of national jealousy or party jealousy, tend to unite nations and communities in the great object of all intelligent minds—the pursuit and discovery of truth. Mr. Murchison closed a speech, replete with liberal and enlightened feeling, by eulogising the labours of the geologists of France, and by proposing the "Health of M. de Verneuil," who was present on this occasion as their representative.

M. DE VERNEUIL followed up, in an admirable reply, the sentiments of his friend Mr. Murchison, and, among other remarks, observed, with reference to the opinions of the geologist of his native country, that they entertained the most deferential respect for the geologists of England, and looked on the distinguished men by whom he was now surrounded as their masters and instructors in the science. So cordial, he added, was the friendship and good feeling entertained by the enlightened portion of the French nation towards this country, encouraged and cherished as this feeling was by the enlightened monarch of France, that, in spite of all the efforts of factious or interested writers to excite a war between England and France, he had no hesitation in declaring, from the numerous ties which united the most enlightened and influential portion of both nations, that war between England and France was impossible, and he begged to congratulate both countries on a state of things so desirable to the best interests of mankind. (Great applause.)

Mr. LYELL followed next, by eulogising the liberality of another country, the United States of America, in promoting geological surveys and the diffusion of geological science. No country had, at so early a period of its history and its power, effected so much for geological science as the American republic. The hammer of the geologist had preceded the axe of the backwoodsman, and his tent had been pitched among the huts of the aborigines. The various State

had vied with each other in the promotion of geological exploration and inquiry, and this patronage had produced a numerous and highly distinguished school of geologists, that when recently the council of the Geological Society wished to elect two honorary members from the United States, they had the greatest difficulty in confining their choice to two, from the number of American geologists who were found deserving of such an honour.

The toast was replied to by the Rev. Mr. COLMAN, from America, who dwelt, in a most impressive manner, on the power of philosophy to cement the bonds of amity and good feeling between nations as well as individuals. He bore testimony to the zeal of his own country in the cause of geology, and, in particular, the states of Maine, New Jersey, and Massachusetts, as having spent large sums in making geological surveys, publishing these, and distributing them gratuitously among the community. He next dwelt on the labours of American geologists—Hitchcock, Rogers, and others—and observed, that such was the desire for this science in America, that Mr. Lyell's lectures had been attended by 4000 persons, and that 8000 would have been present, if the place could have contained them.

The toast of the "Royal Agricultural Society" was acknowledged by Sir J. JOHNSTONE, who dwelt on the labours of Liebig, Daubeny, and Buchland, as having contributed essentially to the improvement of agriculture.

The toast of the "University of Oxford" was responded to by Dr. BUCKLAND, who, in an eloquent address, paid a tribute to many distinguished cultivators of the science, eulogising the talents and labours of Professor Owen, of Dr. Falconer and Captain Cantley, and of Mr. Baine, of the Cape of Good Hope; he also expressed his grateful sense of the liberality of the Government in establishing the Museum of Economic Geology.

Professor PHILLIPS, as the secretary of the British Association for the Advancement of Science, returned thanks for that society in an appropriate and feeling reply.—Professor SEDGWICK, in a speech replete alike with powerful eloquence and playful wit, acknowledged the toast of the University of Cambridge, and concluded by cordially inviting all present to the meeting of science which would take place this year at Cambridge.

Professor OWEN, next, in an admirable manner, acknowledged the debt due from zoology to geological science, and proposed the Health of the "Trustees of the British Museum," which toast was duly acknowledged by H. HALLAM, Esq., the historian, who remarked, that the objects of the British Museum were extremely multifarious, and that it was a matter of some difficulty to pay due attention to all. At the first establishment of the Museum, natural history did not form one of the most prominent features of the institution, but the splendid discoveries of modern times have awakened a fresh spirit on the part of the scientific and general public, which the trustees had been anxious to meet by every means in their power.

The toast of the "Geological Society of Cornwall, and other provincial societies for the cultivation of geology," was acknowledged by Mr. HEYWOOD; and Sir H. DE LA BECHE, on the part of the Museum of Economical Geology, paid a deserved tribute to the liberality of the present and preceding administrations in forwarding and supporting that admirable institution.

The toast of "Success to the Journal," coupled with the health of the Vice-Secretary, Professor Ansted, was briefly, but feelingly, acknowledged by that gentleman, after which the president quitted the chair, and the interesting proceedings of the evening were brought to a close.

FIG. 26.—THE PRESIDENT (MR. HORNER) IN THE CHAIR.

1. A paper was read by Mr. Lyell, "On the Miocene Tertiary Strata of Maryland and Virginia, and North and South Carolina." These rocks of the middle tertiary period are chiefly exhibited between the hill country and the Atlantic and form a band of low and nearly level country, nearly 150 miles wide, and not 100 feet high. They are assumed to belong to this period, because they are seen resting on the Eocene deposits, and exhibit about the same proportion of recent species. The United States Miocene beds consist chiefly of incoherent sand and clay, and the sandy beds, otherwise barren, have often been fertilized by the use of shell marl. In the suburbs of Richmond, Virginia, there is, however, a remarkable bed of siliceous sand, derived from the cases of infusorial animals. The paper was accompanied by comparative tables and list of the fossils.

2. A paper, also by Mr. Lyell, "On the White Limestone and other Eocene Tertiary formations of Virginia, South Carolina, and Georgia." The Eocene beds extend chiefly to the south of the Miocene described in the foregoing paper, and are very widely spread in the Southern States on the shores of the Atlantic. The mineral character of the beds in the north, is so like that of the cretaceous series, that were it not for the fossils they might readily be mistaken; but towards the south a new mineral type is put on, and the rocks consist of highly calcareous white marl and white limestone. In point of fact, there seems to be as great a chasm between the cretaceous rocks and the tertiary in America as in Europe.—A second part of Mr. Lyell's paper gave an account of a series of rocks, called in America the Burr-stone, a siliceous rock, containing fossil sponges, and belonging, it would seem, to the upper division of the Eocene period.

INSTITUTION OF CIVIL ENGINEERS.

FIG. 25.—THE PRESIDENT (MR. BARLOW) IN THE CHAIR.

The paper, by Mr. P. W. Barlow on the comparative advantages of the atmospheric system of propulsion on railways, was the result of an examination of the system, with a view to determining as to the propriety of adopting it on the Tunbridge Wells Branch of the South Eastern Railway. The author first examined the comparative advantages of the atmospheric system over that of traction by a rope; and then he stated the reasons for supposing it to be inferior to the locomotive system. He premised that, on lines similar to the Greenwich and Blackwall, where the traffic was nearly uniform, and at short intervals, the power used admitted of mathematical computation; but that, on railways generally, the power required must be irregular, both as to the amount required and the duration of its employment, and that, therefore, a power which was restricted to carrying between certain given points only, and certain intervals, would lead to great inconvenience in practice. It would be inconvenient also to have a power which could not be employed for the ordinary repairs of the road ballasting, removing slips, conveying building materials, working the coal and lime traffic at sidings, moving goods, trucks, carriages, &c. at the stations, all which was done at present by the locomotives with a great saving of time, and of the expense of men and horses. If locomotives were employed for these purposes only, it must be at a great expense, as the keeping up a small locomotive establishment was very costly; and, moreover, the gradients and curves of the line must be adapted for working locomotives, and thus do away with one of the great arguments in favour of the atmospheric system. It was contended that the subsidence of embankments, which at present constantly occurred, without interrupting the usual traffic, or being perceived by the passengers, would suffice to rupture the air-pipe, or strain it in such a manner that the valve would not close; and thus a stoppage of the line. Many other and similar practical objections were stated against the system; but the main point was in the comparative cost of haulage, when examined with stationary and with the locomotive engines. With the former, it was contended that on lines with unfrequent trains, the small portion of time the power was actually employed, and the number of hours for which the steam must be kept up, in order to be always ready, would be so disproportionate as to make the stationary engine system, far more expensive than the locomotive power. The lines with very steep gradients were, of course, excluded from this position. It was considered also that with the atmospheric system, steep gradients increased the expense of power in the same ratio, as the power must always be exerted in whatever way it was applied. Several experiments were then given to show the great expense of fuel, per ton of goods, on the Atmospheric Railway; the results were decidedly in favour of the locomotive. The cost of construction was then examined; and it appeared that, referring to the calculation of the cost of working the London and Birmingham line, to lay down the atmospheric apparatus of a double line, with a pipe of the required area, would not be less than 10,000l. per mile, or a total cost of 1,120,000l.; the interest of which sum, at 5 per cent., would be 56,000l., or 500l. per mile, which sum nearly equalled the average cost of working the line by locomotives, and was greater than on many lines. In fact, that a contract might be entered into for working a line by locomotive power for the interest of the sum, which would be expended in the establishment of an atmospheric apparatus. The general results deduced, were in accordance with these observations; and it was assumed that the atmospheric system could be most advantageously adopted on short lines, with frequent traffic, near large towns, where the absence of noise was important; and that railways on steep inclines, in one direction, as at Dalkey, was most favourable to the system.

In the discussion which ensued, it was contended that many of the objections urged by Mr. Barlow were not well founded, and that many of the practical difficulties he had advanced, had been overcome by the mechanical arrangements, now in progress of execution, on the more extensive lines, which were destined to be worked on the atmospheric system. That both sidings and level crossings were practicable; by a very simple contrivance, a self-acting platform could be so arranged, as not only to guarantee the pipe from any injury by the traversing of a cart across the line, but that by the action of the vacuum in the main, a barrier could be raised on the passing of a train, which would effectually prevent the traversing of any vehicle, and thus avoid the possibility of accident. That, instead of the assumed liability to be thrown off the rails, it was shown, that the leading carriage, being tied down to the piston, greater security was attained; and that, on one occasion, the leading carriage on the Dalkey line had started before its time, and had actually traversed the distance at a speed of nearly seventy miles per hour, going round curves 130 to 180 yards radius. That the power stated to have been expended in the conveyance of a given gross load, was assumed at too high a ratio, and the fuel also; and that, as to the question of cost by haulage, by the adoption of small steam power, worked only for pumping water, to be used only at the time of forming the vacuum, for unfrequent, or for light trains, a system of propulsion might be established, which would be more economical than that by locomotives, under the best management. These counter-statements, in direct opposition to the arguments of the paper, were ably supported by the various

speakers, at a length which the limits of the report will not permit our giving, and the debate was adjourned until the next meeting of the institution, on Tuesday, March 4, when the monthly ballot for members will take place.

The following paper was announced to be read:—No. 710, "Description of the Great Britain steam-ship, with an account of the trial voyages," by T. R. Guppy, Assoc. Inst. C. E.

TIN MINES OF CORNWALL.

IMPORTANT MEETING OF THE LORDS, ADVENTURERS, AND OTHERS INTERESTED.
(From the *Pennance Gazette*.)

In consequence of the announcement by the Government of their intention of taking off the duty on foreign tin ore, a public meeting was held in the Ticketing-room, at Andrew's Hotel, Redruth, on Tuesday last, for the purpose of considering what steps should be adopted in reference to the proposed measure. The attendance of gentlemen connected with the tin mining interest was large and influential. Among those present we observed Mr. Michael Williams, Mr. R. Taylor, Mr. J. Batten, Mr. T. S. Bolitho, Mr. E. Bolitho, Mr. E. Ley, Mr. J. N. R. Millett, Mr. S. Borlase, Mr. Richard Pearce, Mr. Roscorla, Mr. R. V. Davy, Mr. Higgs, Mr. S. H. James, Mr. Treffry, Mr. C. Harvey, Mr. B. Sampson, Mr. C. K. Vigers, Mr. A. Fox, Mr. R. W. Fox, Mr. S. Davey, Mr. W. Williams, Mr. H. Williams, Mr. T. Garland, Mr. Burrows, Mr. G. Smith, Mr. T. Michell, Mr. H. Grylls, Mr. E. H. Hawke, Mr. Burgess, Mr. Paul, Mr. J. C. Lanyon, Mr. J. Richards, Mr. R. H. Pike, Mr. W. Francis, Mr. V. Michell, Mr. J. Silvester, Mr. C. Read, Mr. R. R. Michell, Mr. Dalby, Mr. J. Lyle, Mr. T. V. Robinson, Mr. Boynes, Mr. J. Haye, Mr. J. Joseph, Mr. J. Drew, Mr. J. Cardozo &c.—Mr. M. Williams, in proposing that Mr. Treffry should occupy the chair, observed that his opinion was that Sir R. Peel had proposed to abolish the duty on foreign tin ores and regulus, without being acquainted with the subject. There had not been sufficient time before calling the meeting to extend inquiries, or consult many gentlemen on the matter whom they had desired to have consulted; the motion was seconded by Mr. T. S. BOLITHO, and Mr. TREFFRY was unanimously called upon to take the chair.

The CHAIRMAN regretted, with Mr. Williams, that there had not been more time afforded them; if there had, he felt sure that many gentlemen who were not then present, would have attended. He was happy to hear the suggestion of Mr. Williams, and he thought they could satisfy the Government, that they were acting under a mistake, as it regarded the abolition of the duty on foreign tin ore. Mr. Gladstone had been labouring under a mistake in 1842—that gentleman then considered that the smelters were more numerous than the miners; and he believed that Sir R. Peel was now under a similar erroneous impression—he, no doubt, thought, that of the created mines, five-eighths went to employ the labourer. Tin gave less labour than copper, and he (Mr. Treffry) thought, that if Sir Robert knew that his measure would reduce labour, he would not take off the duty. As the import duty on tin ore was fixed but three years ago, he considered the proposed change was introduced too soon—it was unfair—it had induced many individuals to speculate at a great risk. He should be happy to hear any proposition gentlemen had to offer.

Mr. T. S. BOLITHO stated, that after Sir R. Peel had made known his intentions relative to the question before the meeting, communications had been received from Sir C. Lemon on the subject; and that Mr. Batten, Mr. Carne, and himself, had ventured to adopt means for calling the present meeting without delay, in order that the sense of the county might be ascertained, as it regarded the abolition of the duty on foreign tin ore. Mr. Bolitho then accounted for the absence of Lord Falmouth, Mr. Tre-mayne, and Mr. Carne, from the meeting—all of whom, he said, were most zealous in the matter.

Mr. R. TAYLOR then rose for the purpose of proposing the first resolution, and assured the meeting that he did so without the slightest hesitation. He had come there that day quite unprepared to take an active part in the business before them. There were those present who were well acquainted with the trade in tin, and who had given it their attention from the outset of their connection with mining, and therefore were well able to judge of the truth contained in the resolution which he now begged to propose. (The resolution was then read.) That the tin mines of the county had, for a long time, to struggle against low prices, the painful experience of many present could indeed testify—the profits had been very trifling. But the spirit of adventure which existed in the county of Cornwall—and the feeling for creating labour also—had stimulated them to go on; and there was consequently but comparatively little diminution in the tin mines—the most ancient product and employment in the county. The settlement of the duty on foreign tin ore, three years ago, had given them grounds upon which to base their future proceedings, and had induced them to go on—but now it was proposed that that protection should be entirely withdrawn. He thought that a deputation of gentlemen connected with the tin trade, waiting on the Government, could make out a case sufficiently strong and clear to satisfy that body on the subject. The facts contained in the first resolution were very strong—irresistible: the tin mines of the county were at the present time losing—the price was not sufficiently remunerative to pay the labourer and manufacturer, and it was cruel and unjust to deprive the population of Cornwall of that protection, which was given to them but three years ago, and which warranted a continuation of an outlay of a large amount of capital upon the faith of that arrangement. He maintained that it would now be most unjust to withdraw that protective duty.—Mr. LEY said that after the able manner in which the resolution had been proposed, there was little left for him to say. He had much pleasure, therefore, in simply seconding the motion, which was put in the usual way and carried unanimously. (The whole of the resolutions will be found in our advertising columns.)

Mr. BATTEN rose for the purpose of proposing the second resolution. They were no longer in a position to draw favourable pictures of the tin mining interest—capital would now be kept back which would otherwise be laid out in explorations. Just as the brighter day was beginning to dawn, the cup had been dashed from their lips, and they were no longer to receive the reward of their industry.—Mr. S. DAVEY seconded the resolution, which was, with those subsequently proposed, carried unanimously.

The next resolution was proposed by Mr. ALFRED FOX, who deemed it unnecessary to enlarge on the contents. He would, however, read to the meeting an extract or two from letters he had received from the East Indies, which might throw some light on the tin trade in that part of the world. These extracts went to show that the tin raised in that country contained from 97 to 98 per cent. of pure tin—that tin ore contained 68 per cent. of metallic tin—and that a short time since 700 tons of tin were exported into France from Penang, raised from adjoining native states.—The resolution was seconded by Mr. J. N. R. MILLETT.

Mr. T. S. BOLITHO here made some observations on the effect the proposed alteration would have on our tin mines, in the course of which he remarked, that it behoved the Government to grant to Cornwall, even a greater protection than if tin were imported from all parts of the world, instead of from Banca alone—for if the produce of the Cornish tin mines failed, at no distant day our manufacturers would be dependent for their home consumption. In 1842, Sir R. Peel had stated to the deputation that he would make no alteration that should injure the mines of Cornwall, and he thought that if they showed Sir Robert that their produce had decreased 20 per cent. it would be a strong argument against his proposition.

Mr. RICHARD PEARCE begged leave to move the next resolution. He had no doubt that the alteration proposed in the tariff was under the idea that it would tend to increase labour in this county by converting rough ore into pure metal. He was sure that many individuals would be perfectly astonished when they learned that the number of persons engaged in smelting the whole tin produce of the county amounted only to about sixty! One man could convert about 100 tons of ore into pure metal annually. It might be said that Sir R. Peel was desirous of husbanding our tin resources for a future period, until such time as the foreign mines should fail; but many present well knew that it took a long time to get a mine into working order, and that those mines in the county were speculated in *seriatim*; but if they were called upon to speculate in forty or fifty mines at once, very few would possess courage enough to do so.—Mr. C. K. VIGERS seconded the resolution.

Mr. M. WILLIAMS proposed, and Captain FRANCIS seconded, the next resolution.—Mr. R. R. MICHELL moved, and Mr. SILVESTER seconded, the following resolution.

Mr. S. BORLASE rose, and observed that he wished the labourers to be employed, and thought it was their duty to protect them; he, therefore, perfectly concurred in the preceding resolutions, as well as in that he was about to propose, which did not require a speech from him.—Mr. RICHARD V. DAVEY seconded the resolution.

A conversation here took place, relative to the number of persons that are employed in tin mines and copper mines respectively—in which Mr. Pearce, Mr. T. S. Bolitho, Mr. Treffry, Mr. Roscorla, Mr. M. Williams, and Mr. A. Fox, took part. It appeared that there are about 9000 employed in tin mines, and 22,000 in copper mines.

Another short conversation then took place, in which Mr. A. Fox, Mr. T. S. Bolitho, Mr. M. Williams, and Mr. R. Taylor, joined, relative to Sir R. Peel's interference, in 1842, with the stream-houses, and the great falling-off in the number of streams in consequence.

Mr. T. S. BOLITHO entered into a statement, showing the fluctuations of prices in foreign tin, owing to the irregularity of its importation into this country. In 1832, Banca tin was in London 554 per ton; in 1835, 581; in 1836, 1251; and in 1837, the price receded to 691. With such fluctuations, no Cornish tin mines could live. The price of Cornish tin in 1835, was 581 per ton—the highest 701—the average 641.

Mr. R. Taylor, in complimentary terms, spoke of the zeal and ability on all occasions manifested by Mr. T. S. Bolitho, in reference to his exertions in promoting the mining interests of the county, and proposed that that gentleman should form one of the deputation to London. They ought in no case to go without Mr. Bolitho, Mr. M. Williams, and Mr. Carne, and he proposed that these gentlemen be requested to form the deputation.—Mr. M. Williams would second the motion with much pleasure, being allowed to withdraw his own name. He could bear testimony to the ability and efficiency of Mr. Bolitho and of Mr. Carne in bygone occasions. He considered a deputation necessary—for who was there to mind their interests, if they did not look after themselves—in order to assist the county, by rendering the Cornish members such local information as was necessary, in inducing Sir R. Peel to relinquish his object.

Mr. A. Fox would second the original motion. Of the two gentlemen named, who were present, he could speak strongly in reference to their ability and zeal, had they been absent.—The CHAIRMAN expressed the pleasure he felt in putting the resolution to the meeting, which was carried by acclamation.—Mr. R. PEARCE then moved that 4d. in the lb. be raised on all tin ore delivered at the smelting-houses during the next three months, to defray the expenses of the deputation, and that Mr. Batten and Mr. Ley be requested to act as treasurers.—Mr. S. H. JAMES inquired what amount was in hand from the former deputation? and was answered, nothing.—The resolution was seconded, and carried.—Mr. M. WILLIAMS proposed, and Mr. T. S. BOLITHO seconded, a vote of thanks to the county and borough Members of Cornwall, as well as to Mr. Randle of (Tavistock), for their exertions in protecting the import duties on tin ores.

The thanks of the meeting were unanimously accorded to the Chairman, on the motion of Mr. A. Fox, seconded by Mr. BORLASE.—The CHAIRMAN acknowledged the compliment. As long as he was able he should consider it his duty to attend meetings like the present, and render all the assistance in his power. Labour in Cornwall, "one and all" ought to encourage, and not allow the labourer to be sent abroad or to the Union. He thought they had so much justice on their side, in reference to the subject of the duty on foreign tin ore, that the Government must comply with the wishes of the county. Our labourers and miners could not find labour elsewhere—a miner was not a cotton spinner. Mr. Gladstone had stated that it was not the wish of the Government to throw a single miner out of employment, and if they would but give fair protection, there would be occasion to carry ore out of this country to be smelted. A protection of 71. 10s. would not drive the foreign miner out of this country. Let them "one and all" do their best to maintain the staple commodity of the county.—The meeting then separated.

MINING OPERATIONS IN SOUTH AUSTRALIA.

We noticed some time ago the discovery of some valuable lead and copper mines in that interesting colony. By the barque *Augustus*, lately arrived in the London Docks, direct from Port Adelaide, from thirty to forty tons of copper ore have been received, which we understand, has been found to contain upwards of 50 per cent. of metal. A small quantity formerly received from the same mine, "the Montacute," was sold here at 241. 1s. per ton. The master of the *Augustus*, Captain John Hart, is a part owner of the Montacute Mine, and from him we learn, that the ore is procured at almost no expense, being so near the surface; he has on board one block weighing about 7 cwt. There is a great probability of a company being formed in London, for the purpose of purchasing lands in South Australia known to contain minerals, and working the mines on a large scale. A gentleman in Cornwall has received a letter from a friend, who went to South Australia some time ago, advising him to sell his shares in some mining companies in Cornwall, as their value will be greatly reduced by the large supplies of ore which will be received from the South Australian mines. Such are the sanguine anticipations of that gentleman; but, while our friends in Cornwall need not be under any very serious apprehensions from that quarter, we are persuaded, that the exports of the colony will be greatly increased, in consequence of the mineral riches with which it abounds. Not only have lead and copper, but quicksilver has been discovered, some of which Capt. Hart saw before sailing. We have it in our power to annex an extract from a highly respectable gentleman, who emigrated to Australia from the continent of Europe some time ago.

Translation of an extract from a letter written by Mr. Woltenius, formerly of Bremen, and addressed to his cousin in that city, the son of the senior burgomaster, dated Adelaide, Sept. 10, 1844.

"This place pleases me very much, I may say better every day that I remain here; I do not at all regret having emigrated hither. The mines are now in full work, and appear to be very rich; there are at present 600 tons of ore lying here, and before the end of the year the quantity is expected to reach 3000 tons. Two ships have just left us with full cargoes, and a third is laid on for London, which is loading copper ore, bark, gum, oil, whalebone, and wool. We shall then be ill off with our accumulation of produce, unless we have a further arrival of vessels. The land here is admirably adapted for agricultural purposes, and whoever has a desire to work is sure to get on; but he must work, and must not be over-nice in respect to privations. I may just add here, that quicksilver is said to have been found in some places."

MINERALS IN NEW ZEALAND.—Mr. Alexander Majoribanks, in his *Travels in New Zealand*, says that extensive coal-fields have been found in different parts of New Zealand, particularly on the north of Middle Island, where there is sufficient to supply the settlers for many years to come, and that without the trouble of mining. Mr. M. further observes, that within the last two or three years extensive copper mines have been discovered; the ore is of very superior quality, containing upwards of 40 per cent. of pure metal.

HAYLE FOUNDRY, CORNWALL.—Messrs. Harvey and Co. are now making large additions to their already extensive foundry. The fitting and boring department, when completed, will be equal to, if they will not exceed, any in England. The additions to the hammer-mill are already completed, one of Nasmyth's Cyclopaen forge hammers having recently been erected. Its weight is 25 cwt. and the frame, which is cast-iron, weighs five tons; the anvil and block weigh nearly fifteen tons; it rises and falls perpendicularly, giving a 34-stroke. It is worked by a 14-inch cylinder, and is under such command that the superintendent can throw the whole of its ponderous weight on the heat, or reduce the blow to the weight of a common sledge hammer. It is a curious and well constructed piece of mechanism, and far exceeds anything of the kind in Cornwall. The first piece of work performed by it was the forging of a gudgeon 8 feet long and 17 inches in diameter, which was perfected without the least difficulty in less than two days. There are upwards of 400 men employed in the various departments of the foundry.

NEW IRON-WORK NEAR CUMPHRENE.—On the western bank of the Pontypool line of the Monmouthshire Canal, within six miles of the town of Newport, a new iron-work has sprung up, as if by magic, and is just commencing active operations. It consists of one blast-furnace, with all requisite conveniences, and the proprietors have the credit of being the first to introduce into this part of the country a new apparatus for lifting the materials to the top of the furnace, as simple and effective as it is ingenious. A passenger, standing on the opposite bank of the canal, in front of the furnace, will observe immediately adjoining thereto, and connected with it, a high stage of woodwork; from the bottom of this there will suddenly emerge, and ascend slowly and steadily to the height of the furnace, a large iron tube or cylinder supporting a platform, covered with barrows of mine, coke, and limestone. These barrows, having been emptied by a man at the furnace mouth, the tube is seen gradually to sink into the earth, and the platform descends with it. The operation above described takes place without any noise, or apparent working of machinery the ascent, as we are informed, being produced by the introduction of blast into the tube, and the descent by the opening of a valve, which discharges it again. By means of this contrivance, the large outlay usually required for making back walls and levelling ground is entirely saved, and the duties of the furnace manager are much facilitated. While standing at the hearth of the furnace, and watching the cinder—that unerring test of quality—he can, at the same time, survey all the operations of the coke yard, and take care that his instructions for charging the furnace are rigidly adhered to. There is another advantage in this piece of machinery, which, to ironmasters, will be invaluable. It may be made the means of securing tip room in a comparatively limited space, for almost any extent of rubbish. We do not profess to know much of iron-furnaces, but it appears to us that this little work is well located, conveniently constructed and arranged. We hail it as another link in the bright chain of our country's commercial prospects, and wish it every success.—*Monmouth. Merlin*.

UNIVERSAL SALVAGE COMPANY;

FOR CARRYING INTO OPERATION
MR. EDWARD AUSTIN'S PATENT METHOD OF RAISING
SUNKEN OR WRECKED VESSELS

BY THE APPLICATION OF IRRESISTIBLE BUOYANT POWER.
Capital £100,000, in 4000 shares, of £25 each.
Deposit £5 per share.

No future call to exceed £10s. per share, of which three months' Notice will be given.
Registered according to Act of Parliament, 7 and 8 Victoria, cap. 110.

DIRECTORS.

Captain SAMUEL PRICE, R.N., Chairman.
Lieut.-Colonel Guy Carleton Cope, R.A.
Captain Edmund Norcott, R.N.
Captain William Barwell, R.N.
Major James Oliver Lindsay, R.H.
Dr. William Marshall.

(With power to add to their number).

STANDING COUNCIL—Joshua Heale, Esq., 3, Gray's Inn-square.
AUDITOR—Alexander Prince, Esq., 14, Lincoln's Inn-fields.
BANKERS—Messrs. Jones, Lloyd, and Co., Lothbury, London.
MANAGER—Mr. Edward Austin, the Patentee.
ASSISTANT—Captain Alexander Yates.

POINT-SOLICITORS.

John Watson, Esq., Jan., 10, Henrietta-street, Covent-garden.
Thomas Eyre Wyche, Esq., 13, George-street, Mansion House.
SECRETARY—Mr. Walter Raymond.

The history of the casualties of the Royal and Commercial Navies of this great maritime country affords melancholy proof of the immense losses annually sustained by shipwreck; indeed, so great is the amount of treasure and valuable property sacrificed to the sea, that the wrecks which lie submerged in the seas of Europe, within the latitudes of 36 and 56 degrees north, and in known localities, are calculated to contain property to the value of £100,000,000, and to be found in a tangible shape upon the surface of the two kingdoms of Spain and Portugal. This immense treasure receives constant augmentation from wrecks occurring upon the different coasts of Europe to the estimated amount of about four millions annually; and these wrecks, in many instances, occasion other wrecks from the obstructions, and especially the foul anchorage, caused by them, when ships are sunk on anchorage ground. In the years 1835-6, this interesting and important subject was investigated by a committee of the House of Commons, who, in making their inquiries, selected two periods of three years each—viz., first, from 1816 to 1818 inclusively; and secondly, from 1833 to 1835 inclusively; and reported, according to Lloyd's books, that, in the first period, the total number of ships or vessels wrecked or missing appeared to be 1203, and in the second period 1762. About the middle of the last century 100 vessels were lost in a single gale of wind at the port of Cadiz.

These facts sufficiently demonstrate the magnitude of the losses occurring from wrecks wrecked at sea, and the importance of any attempt to retrieve them. Such attempts have not been frequent; and the most usual have been by means of the diving-bell. In the year 1683, about a century after the first exhibition of the diving-bell in Europe before the Emperor Charles V. of Germany, William Phipps, founder of the noble house of Mulgrave and Normanby, formed a subscription, to which the famous General Monk Duke of Albemarle, largely contributed, for searching and unloading a Spanish galleon, sunk about forty-five years previously, on the coast of Hispaniola (St. Domingo). After one or two failures, Mr. Phipps succeeded, and returned in 1687 to England, with treasure amounting to £300,000 sterling. The tenth part accrued to the King—the Duke of Albemarle's share was £30,000; and subscribers £100 received £10,000 each on the adventure. Large, however, as was the fruit of this enterprise, the result obtained from the use of the diving-bell, in cases of salvage, is but partial and incomplete; nor is it improbable that an amount of treasure remained in the galleon, after the operations of Mr. Phipps, larger than that which was recovered by him.

The process of Mr. Austin's patented invention, now submitted to the public, is different from that of the diving-bell; but it is derived from the very simple and well-known principle in natural philosophy by which a rare fluid will not only itself ascend, but will also exert an elevating force upon another body so as to raise it, through the denser medium. Upon this principle the bladder of the fish, when filled with air or exhausted, causes its body to ascend or descend (as the case may be) through water; and the application of the same principle to cases of salvage promises results far more complete and important than those obtained by the diving-bell. Not only may a portion of the cargo, but the whole cargo, and, in addition, the vessel containing it, be raised in *bulk* by Mr. Austin's process from the bottom to the surface of the sea.

Again—the process of salvage by the diving-bell is dangerous and protracted; that by means of Mr. Austin's patented invention is safe and expeditious. By this mode a single week would suffice to restore a sunken vessel and her cargo to their owners.

The apparatus of Mr. Austin is contrived so as to determine upon the surface of the water the figure and position of the sunken vessel which is proposed to be raised. Its lifting power arises from certain flexible air-tight cases, which are attached to chains, and are applied to the body of the sunken vessel so as to enclose it. When thus fastened round her, the cases are inflated or expanded with compressed air, thus acquiring from this inflation or expansion a tendency to rise, they communicate it to the vessel which is encircled by them. The buoyancy of their power is irresistible. The sunken vessel and her cargo ascend, under the action of its elastic pressure, upward, to the surface of the water, and the salvage is entire. A working model of the apparatus may be seen at the office. The patent of Mr. Austin has been well tested before nautical men of every class, as well as before scientific gentlemen, both of whom have pronounced their opinions that it possesses greater merit than any other invention for like purposes.

The apparatus of Mr. Austin may be applied to other purposes than those of salvage, but, as no other purposes are contemplated in this prospectus, it is unnecessary to enumerate them.

In order to give practical effect to Mr. Austin's patented invention, it is proposed to raise a capital sufficient to carry it out by an issue of shares; and, to protect the shareholders from the remotest chance of liability beyond the amount of their respective subscriptions, a clause will be inserted in the deed of constitution of the company, restraining the directors from embarking in any one operation until a fair estimate of its probable cost shall have been made by some competent person, either in the employ of the company or otherwise, and the company shall be in actual possession of funds arising from the subscriptions of the shareholders, or from the proceeds of former operations, immediately available for the purpose, exceeding such estimated probable cost by at least one-third, after all the current liabilities of the company are discharged and paid.

It will be obvious, upon referring to the enterprise of Mr. Phipps, and its result, that a single salvage operation, if well selected and well conducted, will replace the capital employed upon it many times over. Several offers of contracts for salvage have been made to this company at very high rates of per centage, and hereafter it is probable that this more eligible of them will be accepted.

It is intended to establish a steam-vessel, with all the late improvements, at the entrance of the River Thames, having on board, in constant readiness, Austin's Patented Apparatus, life boats, rockets, and lines, with other necessary gear, to assist vessels on shore or otherwise. Experience has shown that such a vessel will be the means of saving many valuable lives and much property; also, that she will realize, by salvage alone, a large profit on the capital so employed.—Patents for other countries are also secured.

Under existing circumstances, a further application to Parliament is not deemed necessary; but, if it should be deemed necessary hereafter, it will be made.

Prospectuses may be obtained at the office of the company, 5, Barge-yard, Bucklersbury.

Applications for shares may be addressed to the secretary in the form annexed:—
SIR, I desire to take shares, of £25 each, in the "Universal Salvage Company," and I agree, upon the same being made out to me, to pay the sum of £5 deposit for each share, and thenceforth to hold the same upon the conditions endorsed on such shares, and for the purposes of the prospectus issued by the Universal Salvage Company, bearing date October, 1844; and I further agree to sign the deed of constitution or settlement of the company when required.

To the Secretary of the
Universal Salvage Company, 5, Barge-yard, Bucklersbury, London.

Deposits to be paid to Messrs. Jones, Lloyd, and Co., bankers, London.

Note.—During the last year one of the Steam Tug Companies at Liverpool, by means of the diving apparatus, recovered a vast amount of cargo from wrecked vessels, and their placed in the hands of Lloyd's agent at the above port, upwards of £20,000 recovered from one vessel.

AGENTS AT THE OUTPORTS.

Liverpool—Messrs. Chapman, Bowman, and Co., agents for Lloyd's.
Dover—Messrs. Latham and Co., ditto.
Haverth—Messrs. Billingdale and Co., ditto.
Scarborough—Mr. Francis Jennings, ditto.
Bristol—Mr. John Coutts, ditto.
North Shields—Mr. Robert Peart, ditto.
South Yarmouth—Mr. Philip Bright, ditto.
Sunderland—Mr. James Crosby, ditto.
October, 1844.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

SMART'S ELLIPTICAL CONVEX METALLIC FLOATS,
FOR STEAM-SHIPS, as applied to the Bristol and Dublin steamer *SHAMROCK*, and to the *SWIFT*, between Newport and Bristol; and also to the *OSPREY*, running between Bristol and Waterford. The patentee has now the satisfaction to announce, that, in addition to the ships already named, he has granted a LICENSE to the Bristol General Steam Navigation Company to USE HIS PATENT FLOAT in all their steam-ships, comprising the *Dublin*, *Cork*, *Waterford*, and the various channel port steamers, varying in power from forty horses to two hundred each.

The numerous ADVANTAGES attending this valuable invention may be seen below:

1. The appearance of these floats is light and elegant.
2. Their durability and stability are indisputable, as may be witnessed by the *Shamrock* steamer, which has been fitted with them for nearly twelve months, and has steamed twenty-five thousand miles. The floats are now as firm and good as they were the first day.
3. Vibration is reduced so as to be scarcely perceptible; thus, the engines are cooled, and both they and the ship suffer less wear and tear; and, from their peculiar form, they are strikingly advantageous in cases of strong head wind and heavy sea. Backwater and undulation is also reduced to its smallest quantum, and thereby lessening the chance of accident to small boats, barges, &c., which has hitherto been consequent on the operation of the common paddle-float, particularly in crowded rivers.
4. They more readily arrest the progress of a ship in chances of a collision, the convex side taking the water when this operation is performed. This is of great importance in preventing collisions or beaching a ship.
5. They are very simple, and are easily applied to any paddle-wheel, at nearly the same cost as the common float, and THEY INCREASE THE SPEED MORE THAN ONE KNOT PER HOUR.

For license to use them (for which the charge is 10s. per horse-power), apply to the patentee, Mr. ROBERT SMART, 5, Grenville-place, Hotwells, Bristol, who will personally attend the fitting, if required, his travelling expenses being paid.

AGENTS.

Messrs. George Lunell and Co., engineers and shipbuilders, Bristol.
W. J. Le Feuvre, Esq., Southampton.
J. N. Smart, Esq., Swansea.
Thomas Mowatt, Esq., engineer, Leith, near Edinburgh.
Scott, Sinclair, and Co., Greenock.
W. H. Hutchinson, Esq., Hull.
J. R. Pim, Esq., Dublin and Liverpool.
Jukes, Coulson, and Co., 12, Clement's-lane, London.
* * Testimonials of the highest order, on application to the patentee or his agents, Bristol, December, 1844.

GASPE FISHERY AND COAL MINING COMPANY.

Incorporated by Act of the Imperial Parliament and the Canadian Legislature.

Capital £100,000, in £1000 shares of £100 each.
The directors having the power reserved to them of raising an additional £100,000; the shares comprising such additional issue to be first offered to the existing shareholders in proportion to the number of shares respectively held by each.

TRUSTEES.

The Lord de Lisle and Dudley.
David Barclay, Esq., M.P.
Henry Thomas Hope, Esq.

DIRECTORS.

(Limited by Act of Parliament to six).

Vice-Chairman, M.P. Samuel Amory, Esq.
Charles Cunningham, Esq. William Phillips, Esq.
Richard Norman, Esq. Stephen Price, Esq.

AUDITORS.

Gurney Barclay, Esq. John Cunningham, Esq.
BANKERS—Messrs. Fraser, Galt, and Co.
STANDING COUNSEL—G. A. Young, Esq.
SOLICITORS—Messrs. Amory, Sewell, and Moore.

SECRETARY—Charles F. Ellerman, Esq.

By the Acts of Incorporation the responsibility of shareholders is limited to the amount of capital represented by the number of shares standing in their respective names. The company has been formed for the purpose of carrying out the following objects:—

1. The Fisheries in the Gulf and River St. Lawrence.
2. The Sale of Timber on the Estates belonging to the Corporation.
3. The Sale of Coal.
4. The Sale of Land in Blocks or Small Allotments.
5. The Formation of Agricultural Settlements on the several properties of Bonaventure, Pabos, and Port Daniel, all situate in the district of Gaspé, in Canada East, or Lower Canada.

BONAVENTURE.

The first of the three properties here mentioned consists of about 66,242 acres, and is situate in the township of Cox and Hamilton, on the Great Bonaventure River and its tributaries, which discharge themselves into the Bay of Chaleurs. It constitutes one of the finest tracts of land in the district, perhaps in the province, producing on the one hand choice descriptions of timber, and combining with this the advantage of a fishery, which may be carried to any extent.

PABOS.

This estate is situate near the entrance to the Bay of Chaleurs, and is estimated to contain 53,000 acres, more or less; and is in Bonaventure, so in Pabos, the timber is abundant and of excellent quality, while its peculiar capabilities as a fishing station are, as will hereafter be more fully explained, quite unrivalled.

PORT DANIEL COAL-FIELD.

This property is situate in the immediate vicinity of the Harbour of Port Daniel, twenty-seven miles east of Bonaventure, and fifteen miles west of Pabos, and comprises about 3500 acres of land. The sections have been so selected as to secure to the company the exclusive possession of the entire coal-field.

These estates are purged from all seigniorial rights, and are held in free and common socage. For the purpose of showing the advantages which may be expected to accrue from the purchase of and working these properties with an adequate capital, it will be necessary to go somewhat into detail. The directors will here, however, confine themselves as strictly as it is possible to the limits usually allowed to a prospectus, referring rather to the accompanying appendix for further information as regards the data whereon their estimates of profit are founded.

In the objects which the directors have in view have been already stated, and to these they will briefly refer seriatim; and first—

THE FISHERIES.

The fisheries in the Bay of Chaleurs are well known to be the most valuable of any along the coast of the British Provinces in America, not only by reason of the abundance, superior quality, and variety of the fish caught there, than for the great facilities afforded for curing them. Neither on the bay shore, nor indeed along the whole line of American coast, is there a spot at all comparable to Pabos for the establishment of an extensive fishery, for it has within itself every element necessary for carrying on the various operations on the most extensive as well as on the most economical scale. Apart from other recommendations, to be hereafter more particularly adverted to, it may be mentioned, that it has three harbours admirably adapted for small craft, especially that of Grand Pabos. These harbours offer a secure refuge in all weathers and seasons for boats and small vessels, and in these the fishermen are at all times able to land at night the fish caught during the day, which, being immediately prepared for curing on the spot, are ready, whatever may be the quantity, for salting before the morning. Fish thus prepared are greatly superior in quality to those cured on board the vessels—a proceeding which must be resorted to, as is universal with the Americans, where the curing station is at any distance from the fishing ground; and hence, while the price which the former commands in the home and foreign markets is always higher, the cost of production is comparatively greatly less. This must be self-evident, for while the fishery at Pabos is carried on in open boats, manned by two men only, and within sight of the shore, from whence several trips are sometimes made in a day—the work, under less favourable circumstances in point of locality, is carried on in decked schooners of from 100 to 140 tons burden, manned by a numerous crew, who are generally 100 miles and upwards from their curing station. These schooners remain at sea till loaded, and to preserve the fish, salt them excessively. From this process, and from the impossibility of drying them, the fish is greatly injured, as well as their colour—while it is clear the cost must be far greater than where boats are employed, under such circumstances alluded to.

Flakes for drying the fish can be erected at Pabos at a very trifling expense, for the raw material costs nothing, and is readily attainable from the company's forests; and, when thoroughly cured, they will be sent to Port Daniel for shipment, where it is intended to build stores wherein to house and sort them for the different markets.

There is yet another circumstance connected with Pabos which renders it peculiarly eligible for a fishing station, giving it in fact a decided superiority over every other in the bay—viz., the abundance of bait, which can at all times be procured there. This may appear at first sight a fact so unimportant in itself, as not to be worth notice; yet it forms in reality a powerful element of success—for fishermen are sometimes compelled to come above 100 miles to procure it. The mere cost of taking the bait is trifling; but the waste of time must be great, and proportionately great must be the cost of production of the fish to the stranger, over that of the fishermen of Pabos, who find it on the spot.

LUMBER TRADE.

Bonaventure, exclusive of its capabilities for carrying on the lumber trade on a large scale, commands an extent of coast which will greatly facilitate the fisheries, directly as well as indirectly. To prosecute the fisheries on the most profitable footing wood is indispensable. It is required for building boats, barges, making casks, tubs, &c., and also for exportation to those countries where fish is consumed—as the Mediterranean, the Brazils, the West India Islands, &c. The establishments which have for a long series of years exercised a monopoly over the fish trade possess no mills; and herein, again, a company even preparing their staves only by machinery would have a decided advantage over those who pay the manufacturers' profit, which they must do if made by hand—a difference which may be safely estimated at 30 per cent. on the prime cost of the casks, tubs, &c.—a large item of profit, considering the many thousands annually used.

It has been ascertained, from accurate inspection and survey, that the quantity of timber on the Pabos and Bonaventure properties is immense, while in quality it is scarcely surpassed in Canada. The quantity consumed in the trade and works of the company will be large, and what is not required for these purposes can be readily disposed of. The calculations contained in the appendix will show that from this source considerable profits may be safely relied on, taken even, as the directors have done, the costs of production at the maximum, and the proceeds at the minimum, of probability.

Both at Pabos and Bonaventure are excellent sites for saw mills, with a water power far greater than ever can be required by the company.

PORT DANIEL AND ITS COAL-FIELD.

The harbour at Port Daniel is the best within the Bay of Chaleurs, and the only harbour, in fact, on the shore between Gaspé and Dalhousie (a distance of 140 miles) in which vessels can venture to land in the spring and autumn. The approach to it is also more direct than to any other harbour in Lower Canada. There is neither bar nor shoal to endanger the entrance, and the anchorage is good for ships of any burden. Being thus the only safe place of refuge for shipping along so great an extent of coast, Port Daniel, without at present any particular trade of its own, is a valuable possession, irrespective of the coal-field.

Its central situation, in reference to the property of the Corporation, must be productive of advantages which are incalculable. Within its commodious port, vessels of very large tonnage may lie and load alongside the shore with as perfect security and with equal convenience as in one of our own docks, instead of, as is necessarily the case at present with other establishments engaged in the fishing trade, in an open roadstead, where, from blowing weather, weeks are sometimes expended in the operation, to the manifest loss of the shipper from the payment of extra freight and charges, and frequent loss of or injury to the cargo in bringing it from the shore in boats or barges. At Port Daniel, therefore, it is proposed to erect stores for housing the fish, and there also the manufactured lumber will be piled ready for export. These articles will be brought from Pabos and Bonaventure in barges, for which an ample provision has been made in the calculation of charges; and one of the advantages of the position of Port Daniel is, that when the wind is foul from Pabos it will be fair from Bonaventure, and vice versa, so that no delay will take place in carrying on the work.

The coal field commences about one mile and a half from the mouth of the river, and extends about four miles in a direct course inland. The coal, after careful investigation, is pronounced to be highly bituminous, and suitable for all domestic purposes. Steam-engines, and manufacturing, and looking to the large and increasing Colonial demand, and particularly that of New York, it may with good reason be expected to yield a considerable and growing revenue to the company.

With a view, however, of investing as small a portion of capital as it is possible in preliminary expenditure, the directors propose to let the coal-field, for a period at least, on lease, receiving from the lessees a royalty on all coal raised, in lieu of rent, and they have the best reason to believe there will be no difficulty in finding parties willing to undertake the speculation.

It will be seen in the appendix, that from the fish trade an annual income is calculated upon of—
From the lumber trade £28,233 0 0
From other branches of trade nothing, for reasons stated in the appendix nil.
£28,233 0 0
Estimated charges per annum 12,000 0 0
Balance of profit £16,233 0 0
Or 20 per cent. on the capital of the corporation.

Applications for shares must be made to the secretary, at the offices of the corporation, 2, New Broad-street, in accordance with the accompanying form. A deposit of £10 per share will be required on their allotment; but the acts of incorporation direct that three months' notice shall be given of all future calls, none of which must exceed £10 per share.

FORM OF APPLICATION.

I request you will insert my name as a subscriber for shares in the Gaspé Fishery and Coal Mining Company; and I hereby undertake to accept the same, or any less number than that you may allot to me, and to pay the deposit of £10 per share when I may be required to do so.

I am, Sir, yours, &c.,
Name
Residence
Description
Date

* Vide Colonial Magazine, No. 8, for August, 1844, p. 436.

† Including 5 per cent. interest on the capital.

LONDON AND WESTMINSTER BANK.—Notice is hereby

given, that the ANNUAL GENERAL MEETING of the proprietors of this company will be HELD at the bank, in Lothbury, on Wednesday, the 5th day of March next, at One o'clock precisely, to declare a dividend, and for other purposes.—At this meeting three directors—viz., Matthew Boulton Rennie, Esq., Charles Gibbs, Esq., and William Haigh, Esq., retire by rotation, but, being eligible for re-election, offer themselves accordingly. By order of the board,
Lothbury, Jan. 21, 1845.
The Transfer Books will be closed, to prepare for the dividend, from the 17th February to the 10th of March.

PATENT IMPROVEMENTS IN CHRONOMETERS.

WATCHES, AND CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gu. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gu. to 12 gu. each. DENT'S PATENT DIPLIDIOSCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use, 1s. each, but to customers gratis.

OFFICES OF THE COMPANY, 63, MOORGATE-STREET, LONDON.

GREAT MUNSTER RAILWAY OF IRELAND.

(PROVISIONALLY REGISTERED.)
FROM TRALEE AND TARBERT, THROUGH LIMERICK DIRECT TO DUBLIN,
TO JOIN THE
DUBLIN AND CASHEL RAILWAY,
NEAR THE TOWN OF MOUNTAITH, IN THE QUEEN'S COUNTY.

Accommodating the country of Kerry, the towns of Tralee, Ardara, Listowel, Ballylongford, Tarbert, Castle Island, and Killarney.
In the county of Limerick, the towns of Glin Shanagolden, Askeaton, Adair, Pallas, Henry, Abbeyfeale, New Castle, Rathkeale, the city of Limerick, and Castle Connell.
In the county of Tipperary, the towns of Nenagh, Clonahordan, and Roscrea.
In the Queen's County, the town of Borris in Ossory.
Length of line 120 miles.
Capital £1,300,000, in shares of £50 each.—Deposit £2 10s. per share.
No shareholder to be liable beyond the amount of his subscription.

PROVISIONAL COMMITTEE.

The Right Hon. Lord Dunell.
The Honourable Francis Althorpe Prittie.
John Bayly, Esq., High Sheriff, county Tipperary.
Christopher Galloway, Esq., High Sheriff, county Kerry.
Henry Watson, Esq., High Sheriff, city Limerick.
Richard Unlake Bayly, Esq., J.P. and D.L., Ballymacnagh.
Edward Turst Carver, Esq., Marlborough-house, London.
Daniel Cronin, Esq., J.P. and D.L., the Park, Killarney.
Michael Furnell, Esq., J.P. and D.L., Limerick.
Joseph Griffith, Esq., Roscrea.
Kean Mahoney, Esq., Killarney.
John O'Connell, Esq., J.P., Grenn, Killarney.
L. H. Thompson, Esq., Kennington, London.
Adam Walker, Esq., J.P., Nenagh.
Captain Hamilton, Charles-street, St. James's-square.
John Coltsman, Esq., Fleak Castle, Tralee.
Charles Geo. Fairfield, Esq., J.P. and D.L., Mount Eagle, Tralee.
Wm. Talbot Crobie, Esq., J.P. and D.L., Ardara Abbey, Tralee.
Dennis O'Brien, Esq., Limerick.
Alderman Saunders, Cork.
Captain Meredith, J.P.
(With power to add to their number.)

ENGINEERS—Messrs. Leamy, M.I.C.E.L. and D.

Messrs. Johnston, Farquhar, and Leech, London.
P. Ryan, Esq., 23, William-street, Dublin.

SECRETARY AND LONDON AGENT—Edward Billing, Esq.

BANKERS.

Union Bank of London, 8, Moorgate-street, Lothbury; Messrs. Moss and Co., Liverpool; Bank of Ireland; Provincial Bank of Ireland; National Bank of Ireland; Tipperary Joint-stock Bank—and the branches of those banks.

The following are the brokers and agents of the company, to whom applications for shares may be made, and from whom prospectuses may be had:—Mr. Edward Billing, Secretary in London, 63, Moorgate-street, and Albion Chambers, Adelphi; Mr. John Wills, stock and sharebroker, Royal Bank-buildings, Liverpool; Messrs. George Edwards and Son, sharebrokers, Bristol; Messrs. Potter and Co., stock and sharebrokers, Leeds; Messrs. Collinson and Flint, stock and sharebrokers, Hull; Messrs. Cardwell and Sons, Manchester; Mr. Thomas Miller, stock and sharebroker, Edinburgh; and Mr. J. C. Foulds, sharebroker, Glasgow.

OFFICES OF THE COMPANY, 63, MOORGATE-STREET, LONDON.

CORK, YOUGHAL, AND FERMOY RAILWAY.

ACCOMMODATING THE
CITY OF CORK, THE TOWNS OF MIDDLETON, FERMOY, RATHCORMACK,
COVE CLOYNE, CASTLEMAHONY, KILLLAGH, AND YOUGHAL.

PROVISIONAL COMMITTEE.

James Carnegie, Esq., North Esk, Cork.
J. Carmichael, Esq., Cork.
Alderman Alfred Greer, Cork.
F. Morris, Esq., Tulse-hill, Brighton.
Henry Penny, Esq., 131, Piccadilly, London.
G. B. Hudson, Esq., Essex-court, Temple.
Alexander Ross, Esq., St. Mary Axe, London.
Thomas R. Sarsfield, Esq., J.P., Duncloyne, Cork.
L. H. Thompson, Esq., Kennington, London.
Charles Copland, Esq., Botolph-lane, London.
(With power to add to their number.)

ENGINEERS—Messrs. Leamy, M.I.C.E.L. and D.

Messrs. Johnston, Farquhar, and Leech, London.
Julius Caesar Bernard, Esq., 59, South-Mall, Cork.

SECRETARY AND LONDON AGENT—Edward Billing, Esq.

BANKERS.

Union Bank of London, 8, Moorgate-street, Lothbury; Messrs. Moss and Co., Liverpool; Bank of Ireland; Provincial Bank of Ireland; National Bank of Ireland—and the branches of those banks.

The following are the brokers and agents of the company, to whom applications for shares may be made, and from whom prospectuses may be had in a few days:—Mr. Edward Billing, Secretary in London, 63, Moorgate-street, and Albion Chambers, Adelphi; Mr. John Wills, stock and sharebroker, Royal Bank-buildings, Liverpool; Messrs. George Edwards and Son, sharebrokers, Bristol; Messrs. Potter and Co., stock and sharebrokers, Leeds; Messrs. Collinson and Flint, stock and sharebrokers, Hull; Messrs. Cardwell and Sons, Manchester; Mr. Thomas Miller, stock and sharebroker, Edinburgh; and Mr. J. C. Foulds, sharebroker, Glasgow; and Mr. J. McDonnell, Post-office, Cork.

CORK AND KILLARNEY RAILWAY, with a FUTURE

EXTENSION TO VALENTIA (Provisionally Registered),
FROM CORK TO MACROOM, AND MILLSTREET TO KILLARNEY, WITH A BRANCH
THROUGH KANTURK TO MALLOW.

Length of line 72 miles, including the Branch to Mallow.
Capital £650,000, in 13,000 shares, of £50 each.—Deposit £2 10s. per share.
No shareholder to be liable beyond the amount of his subscription.

OFFICES OF THE COMPANY, 63, MOORGATE-STREET, LONDON.

PROVISIONAL COMMITTEE.

Christopher Galloway, Esq., High Sheriff of the county of Kerry.
Daniel Cronin, Esq., of the Park, Killarney, J.P.
Kean Mahony, Esq., Killarney.
John O'Connell, Esq., Grenn, J.P.
Lewis Crombie, Esq., Holles-street, Cavendish-square, London.
Alexander Ross, Esq., St. Mary Axe, London.
L. H. Thompson, Esq., Kennington, London.
Thos. Parsons Boland, Esq., J.P., Pembroke House, Passage West.
James Spaine, Esq., J.P., Grenn House, Bandon.
William B. Hoare, Esq., J.P., Cork.
John Saunders, Esq., J.P., Cork.
Dennis Shine Lawlor, Esq., J.P., Castle Lough.
John Coltsman, Esq., Fleak Castle, Tralee.
Alderman Saunders, Cork.
Captain Saunders.
Thomas R. Sarsfield, Esq., J.P., Duncloyne, Cork.
James Carnegie, Esq., North Esk, Cork.
Alderman Alfred Greer, Cork.
J. Carmichael, Esq., Cork.
W. G. Brown, Esq., J.P., Coolcower House, Macroom.
Robert Nettles, Esq., J.P., Nettville, Macroom.
Rev. Somers Payne, Upton, Bandon.
Robert Foster, Esq., R.N., Rock Castle, Bandon.
(With power to add to their number.)

ENGINEERS—Messrs. Leamy, M.I.C.E.L. and D.

Messrs. Johnston, Farquhar, and Leech, London.
Julius Caesar Bernard, Esq., 59, South-Mall, Cork.

SECRETARY AND LONDON AGENT—Edward Billing, Esq.

BANKERS.

Union Bank of London, 8, Moorgate-street, Lothbury; Messrs. Moss and Co., Liverpool; Bank of Ireland; Provincial Bank of Ireland; National Bank of Ireland—and the branches of those banks.

The following are the stockbrokers and agents of the company, to whom applications for shares may be made, and of whom prospectuses may be had:—Mr. Edward Billing, secretary in London, 63, Moorgate-street, and Albion-chambers, Adelphi; and at the offices of the solicitors in London, Dublin, and Cork; Mr. John Wills, stock and sharebroker, Royal-buildings, Liverpool; Messrs. George Edwards and Son, sharebrokers, Bristol; Messrs. Potter and Co., stock and sharebrokers, Leeds; Messrs. Collinson and Flint, stock and sharebrokers, Hull; Messrs. Cardwell and Sons, Manchester; Mr. Thomas Miller, stock and sharebroker, Edinburgh; Mr. John McDonnell, post-office, Cork; Mr. J. C. Foulds, sharebroker, Glasgow; and Mr. Edward Ashe, Macroom, Ireland.

FORM OF APPLICATION FOR SHARES.

To the Provisional Committee of the Cork and Killarney Railway.

GENTLEMEN,—I hereby request you will allot me shares in the above proposed railway; and I agree to pay the deposit of £2 10s. per share upon such allotment as you may be pleased to make, and to sign the subscription contract required by Parliament, and also the subscribers' agreement.

I am, Gentlemen, your obedient servant,

Name

Profession, trade, or calling

Residence

Date of application

BRISTOL AND EXETER RAILWAY COMPANY.—At

the Half-Yearly General Meeting of this company, held at the White Lion Hotel, in the city of Bristol, on Thursday, the 27th of February, 1845.

FREDERICK RICKETTS, Esq., in the chair.

It was unanimously resolved,—

1. That the corporate seal of this company be affixed to the register of proprietors now produced.
2. That the report of the directors, now read, be received and adopted, and that they be requested to send a copy thereof to every proprietor.
3. That a dividend of 4½ p. per share, for the half-year ending on the 6th day of April next, be declared payable after the 30th of the same month, free of income tax.
4. That Edward Divett, Esq., M.P., Mr. Samuel Lucas, Dr. Miller, and Mr. Charles B. Frapp, be re-elected directors of this company.
5. That the best thanks of the proprietors be given to the directors, for their able and zealous management of the affairs of this company.
6. That the best thanks of the proprietors be given to the secretary, for the zeal, attention, and talent with which he has promoted the interests of the company.
7. That the best thanks of this meeting be given to Frederick Ricketts, Esq., for his able and judicious conduct in the chair.

CHESTER AND HOLYHEAD RAILWAY COMPANY.

Incorporated 4th July, 1844—7 and 8 Victoria, cap. 65.

SECOND GENERAL MEETING.

At the Half-yearly General Meeting of the Chester and Holyhead Railway Company, held at the offices of the company, 62, Moorgate-street, London, on Wednesday, the 26th February, 1845.

W. R. COLLETT, Esq., M.P., in the chair.

The seal of the company was affixed to the register of proprietors.

1. That the report of the directors, now read, be received and adopted; and, together with the statement of accounts, be printed and circulated amongst the proprietors.
2. That, to provide means for the labourers, about to be brought on the line, attending Divine Worship on Sundays, a sum not exceeding £300 for the current year, be placed at the disposal of the directors, provided that an equal amount be raised for the purpose from other sources.
3. That the thanks of the proprietors be given to the directors, for their zeal and ability in promoting the interests of the company.
4. That the thanks of the proprietors be given to the auditors for their services.
5. That John Lewis Provost, Esq., and Wm. Borradaile, Esq., be re-appointed auditors.
6. That the thanks of this meeting be given to the chairman, for his satisfactory explanations relating to the affairs of the company, and his able conduct in the chair.

PROVINCIAL AND FOREIGN WATER-WORKS

COMPANY.—(Registered Provisionally.)

Capital £500,000, in 10,000 shares, of £50 each.—Deposit £1 per share.

ENGINEER.

Thomas Wickstead, Esq., Engineer to the East London, the Grand Junction, the Vauxhall and Kent Water-Works, in London, and the Hull Water-Works.

SOLICITORS.

Messrs. Marten, Thomas, and Hollams, Mining-lane, London.

The recent Report of the Commissioners for Inquiry into the Health of Towns, having shown the expediency of an increased supply of water for country places and districts, and the want of similar supplies on the continent being well known, a company is in course of formation, the object of which is to raise a capital, to be employed in affording to provincial cities and towns, the British colonies, and cities and towns on the continent, the means of an abundant and constant supply of water, similar to that which exists in the metropolis.—The calculations of profit show a return of at least 8 per cent. on the capital expended.—The names of the provisional committee will shortly be advertised.

Applications for shares, in the following form, may be made to the solicitors, of whom detailed prospectuses may be obtained.

GENTLEMEN,—I request you to allot me shares in the Provincial and Foreign Water-Works Company, and I hereby undertake to accept the same, or any less number than that you may allot to me, and to pay the deposit of £1 per share thereon, and also to execute the Parliamentary contract and subscribers' agreement when so required.

Dated

Name

Address

Profession

Reference

VICTORIA PARK CEMETERY COMPANY.

Registered provisionally, pursuant to 7 and 8 Vic. c. 110.

Capital £20,000, in 2000 shares, of £10 each.—Deposit 10s. per cent.

DIRECTORS.

George Offer, Esq.
Joseph James Foot, Esq.
James Collier, Esq.

Charles Salisbury Butler, Esq.
Frederick James Catling, Esq.
Robert Beeton, Esq.

This company is established to afford the means of sepulture to the population of the metropolis and in the eastern parts adjacent thereto, having for its object the securing an ultimate and protected resting-place for the dead, and a provision for the removal of the living—the necessity of promoting the health of towns, by prohibiting interments within their walls, is too universally admitted to need comment.

Applications for shares, &c., to be made (post paid) to John Humphreys, Esq., solicitor and registrar, 6, Spital-square.

GREAT PARIS AND LYONS RAILWAY.

Capital 200,000,000 fr. (£5,000,000), in 500 fr. (£20) shares.
Deposit 50 fr. (£2) per share.

To be repaid in full, without interest, in case the company should not obtain the Lease.

PROVISIONAL COMMITTEE.

M. le Comte de la Pinossiniere, Pair de France, Membre du Conseil General d'Indre et Loire.

Le Lieut. Gen. Comte de Rumigny, Aide-de-Camp du Roi, Administrateur du Chemin de Fer de Lyon à St. Etienne.

M. Gilbert Coutouy, de Lyon, Entrepreneur General des Transports du Gouvernement.

M. F. Oudet, Administrateur des Messageries Lafitte, Caillard, et Cie.

M. Barbier Ste. Marie, Administrateur des Messageries Lafitte, Caillard, et Cie.

W. T. Copeland, Esq., Alderman and M.P.

Sir Arthur de Capell Brooke, Bart.

John Gillyatt Booth, Esq.

Hon. William Ashley.

John Griffith Frith, Esq.

Henry Lewis Smale, Esq.

Andrew Spottiswoode, Esq.

WHEAL FRANCO MINE.—Notice is hereby given, that, at a General Meeting of the shareholders, held this day, a CALL of ONE POUND per share was made, the same to be paid immediately. This call is rendered necessary, from the present want of means to drain the eastern part of the mine, thereby preventing the anticipated return of ore. Means are now being adopted which will obviate the difficulty. —Plymouth, Feb. 18, 1845. J. BOSWORTH, Secy.

ARMAGH, COLERAINE, AND PORTRUSH RAILWAY COMPANY.—The allotment of shares will take place to-morrow, and the deposits must be paid on or before Saturday, the 8th of March. The liabilities of the shareholders are limited to 7. 6d. per share, in case the bill should be rejected by Parliament. T. W. YOUNGHUSBAND, Secy. WILLIAM GALT, Secretary.

4, Great Winchester-street, Feb. 28.

THE PATENT SAFETY FUSE. FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDIENT MODE of effecting this very hazardous operation. From many testimonies to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c. "I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this." Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, 4, Great Winchester-street, London, W.

NOTICE TO INVENTORS.—OFFICE FOR PATENTS OF INVENTIONS AND REGISTRATIONS OF DESIGNS, 14, LINCOLN'S INN-FIELDS.—The printed INSTRUCTIONS gratis, and every information upon the subject of PROTECTION for INVENTIONS, either by Letters Patent or the Designs Act may be had by applying personally, or by letter, pre-paid, to Mr. Alexander Prince, the office, 14, Lincoln's Inn-Fields.

COMBUSTION OF COAL, CHEMICALLY & PRACTICALLY CONSIDERED. With coloured plates. By CHARLES WYE WILLIAMS, Esq. London: Simpkin, Marshall, & Co., and J. Weale—Birmingham: Wrightson & Wells.

NOTICES TO CORRESPONDENTS. W. W. W. (Merthyr Tydvil), J. B. (Bridgend), and J. G. (Ponza, Spain), will receive communications by post.

We have been favoured by our able correspondent, Dr. Murray, with a paper on the several treatises, &c., recently published on the Explosion of Coal Mines, which will appear in next Journal.

We are preparing a history of all the different methods of submerged propelling, and, in order to render the paper as perfect as possible, we should feel obliged by the communications of correspondents on the subject.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, MARCH 1, 1845.

We are still without the data necessary to fully establish the position of the "home" miner in a manner which we feel desirous of doing, so as to avoid any question likely to arise on the part of the smelter, the foreign mine owner, or adventurer—hence we must needs defer our remarks on the subject. We are daily acquiring information, which will doubtless be found useful by the committee appointed to watch and protect the mining interest, and gladly shall we place it at their disposal, for never did a government act so recklessly with regard to one of the staple branches of our national industry and sources of revenue, as that manifested by the attack made on the miner and mine-adventurer by our present Conservative freetrade legislators. There is already a hatred or detestation, on the part of Cornishmen, to the Poor Law Bastille, and thousands are there who we believe would rather die in penury and want than be indebted to the Union which separates the husband and his wife, not only from each other, but from their offspring. Yet, if the free-traders, with Sir Robert Peel as a leader, carry out fully their objects, and this appears likely—if we are to judge by the rapid strides made of late, we apprehend that the Union Houses, however untenanted they may be at the present moment, will be found far too limited to afford space or accommodation for the many thousands thrown out of employ by the ministerial measure.

It is now some three years since an alteration was made in the tariff, and that copper ores were admitted at a duty to be smelted in this country, a reduction was then made in that imposed on tin, and a duty of 20s. per ton fixed on tin ores; manganese and other metals were also to be admitted on modified terms. Against this measure, active but fruitless efforts were made, the smelter and foreign miner, with the Liverpool interest, had too strong a hold on the minister, who in turn was weak enough to be led by their representations, and to sacrifice the national interest, and thus inflict an irreparable injury on the county of Cornwall.

As an instance of the effect caused by the alteration in the law, we may merely observe that in the mines of Fowey Consols and Far Consols, the difference arising from the depreciation in the standard in 1844, as compared with 1841, has amounted to no less a sum than 25,000l. on the ores raised in the past twelve months, and hence a reduction of profits, or an increase of loss attendant on the working of these two mines alone. We will not, however, attempt to argue or discuss the point without figures, which, in themselves, must be held to be conclusive by all parties, however opposed our views may be to those they themselves entertain; and, with a passing remark on the meeting held at Truro this week, as regards the remission of the import duty on tin and other ores, we shall allow the subject to remain over until our friends perform their promised aid, by contributing "facts and figures." We are fully sensible how much their time and attention must be employed, but when they consider the importance of the subject at issue, we feel assured, to use an Irishism, they will not be "backward in coming forward." The remission of the duties, as proposed by the Minister, is next to absolute free trade, as regards mineral products, for copper ore alone remains with a slight duty imposed on its import, and this, we may well imagine, nay, feel assured of, will be permitted to be brought into this country, free of all duty, ere another session expires.

We admit that, for the present, we are secure; yet the smelter, the foreign miner, the ship owner, and others whose interests are concerned—but who concern not themselves for those of others, are not satisfied to wait awhile. No; they must memorialize the Government: and never was so shameful a document composed, so full of misrepresentations, and so devoid of truth, without the slightest grounds on which to support their prayer—for claim they had none. This precious document, engrossed, we understand, on asses' skin, was given in our Journal of the 15th ult., reserving, as we did, our comments until we shall be in a position to grapple with the subject, and at once to destroy that of the memorialists, and like the

"Baseless fabric of a vision,

Leaves not a wreck behind."

We, therefore, pass on to a brief notice of the meeting held the 25th ult., at Truro, on which occasion, that true and hearty friend of the working miner, Mr. J. T. Treffry, presided.—The resolutions will be found in another column, and it is alone sufficient to direct attention to one fact to point out the folly, nay, the heartless injustice perpetrated by the Minister. It is there recorded, that all the tin of Cornwall yields support only to sixty individuals in the smelting process, but let us inquire what is the number employed in working the mines, in dressing and returning the tin stuff. When we consider Wheal Vor in its days of prosperity, and other tin mines, the thousands of the population dependant for support, and again reflect that all the tin ores of Cornwall may be smelted by sixty to seventy individuals, how insignificant is the question, as to giving employment, by encouraging foreign ores. It may be said, that the duty at present imposed is so trifling, as to be merely nominal, and that its entire removal can do no harm, inasmuch as foreign ores are not imported; but what says the resolutions, as to the effect produced by the reduction in the duty on the import of Banca tin. The words of one of the resolutions are—"That the tin mines of Cornwall have had for

some time to struggle against an unusually low price for their produce, which has, within the last three years, caused a diminution of the quality of tin raised, to the extent of 1000 tons per annum."

This, in itself, speaks volumes. Let us again look at the present price compared with that three years since. Let us again look at the value, or rather we should say, the price paid for labour, and then how fearful the effect of this abominable measure of the Minister will be duly understood, and, doubtless, appreciated. Glad are we, then, to find that the miner is "up and stirring," and well assured do we feel that with unity of action, "One and All," the Minister, and the representatives of the county of Cornwall, will yet be taught a lesson, which will not easily be eradicated from their memory. We commend them to weigh well the measures they propose, and not too hastily to commit themselves.

Having in our last Number adverted to the proceedings in the cause, PATTERSON v. HOLLAND, for infringement of patent, we have now to direct attention to the letter of the solicitor of the plaintiffs, which appears in another column, accompanied by a communication from the secretary of the "Galvanised Iron" Company. It appears, from the representations therein made, that in seven out of eight counts, a verdict was given for the plaintiffs, and that it was alone on the fifth having reference to the form of specification that an exception was made in favour of the defendants—it being urged that the mode of manufacture was not in strict accordance with that described and set out in the "specification." We have reason to believe that the question will not be allowed to rest here, but that ulterior proceedings will be taken to quash the verdict, or so far to upset it, as affects the fifth count, it being contended, that the amended law of patents introduced, if we mistake not, by Lord Brougham, allows the patentee to withdraw any portion of the specification, which, under the former act was not permitted, any excess of words or description in the specification being held to be fatal to the patent. Hence it is conceived that an application to the Privy Council to rescind or cancel certain portions of the specification would at once render the patent perfect, while the verdict of the jury, on the first count, being to the effect, that the defendants had infringed the patent, is considered as decisive of its validity—indeed, as we observed last week, the verdict as given perfectly stultifies the jury, inasmuch that they declare the patent to have been infringed, and, at the same time, express their opinion that the specification is imperfect, which would alone, we should have supposed, have invalidated the patent. However, there is a pretty field for the lawyers, and there is but little doubt they will make fair game of their clients. Already another action, against the Messrs. Walker, of Gospel Oak, is, we understand, pending, which will doubtless determine the course that may be further adopted in the case under notice, whilst we can only reiterate our expressions of regret that men of scientific attainments and practical ability should thus allow themselves to be plucked by the lawyers. Why not refer the matter at issue to parties capable of judging of the merits of the respective claims, and refer any legal questions to a barrister of eminence—were such course pursued, we should have less law and more honesty."

A meeting of the shareholders in the Central Cornwall Railway, was held on the 25th ult., and although refused admission, in the first instance, a special application met with success, and thus we are enabled to give an outline of the proceedings. We should not have intruded the matter on the attention of our readers for the company is defunct, had it not been that some little matters "oozed," out which, like the courage of Bob Acres, would have been not allowed to escape, but for the weakness of the parties. There are three points to which we would invite attention:—1. The Chairman's jobbing;—2. The petition of Mr. HARVEY;—3. The compromise. From first to last, money, money, seems to have been the idol; and yet, we have heard of speeches made by Cornishmen, who, with the *amor Cornubiensis*, came forward to support the only line which could be beneficial to the county; the capital for which they liberally invited parties in London, Liverpool, Manchester, and elsewhere to subscribe: but to our points.

At the meeting, Mr. TILLY, the highly respectable solicitor of the company, challenged the chairman, EDMUND TURNER, Esq., M.P., the liberal banker and representative of Truro, with having purchased 150 shares in the rival company (the south line) while he there presided as representing and upholding the interests of the central line. "Oh!" said Mr. TURNER, "I did not buy the shares, to advance or promote their views, but for my own profit. I did, I admit, give a check for 4500l., in payment of the deposit on 150 shares, at par, or 3l. per share; and my intention was, I confess, to bring them to London, and make what profit I could upon them." Good, very good, Mr. TURNER, we applaud you—your motive was honest at least to yourself; and we know no reason why you should not make 2 or 3l. per share premium, as well as others. Why is it, because you first supported the southern line, and then backslided and went over to the central, that you should be deprived of that advantage, by jobbing, to which we contend all are entitled. Most willingly would we have shared with you the profits, leaving to you all the merit you can claim, and which is, indubitably your due in the transaction; and then, Sir, moreover, you are a member of Parliament, which, in itself, is sufficient to justify you in changing sides, or going to the right or left, so that you realize a something; and that, if you lose your place, it is only to change it for a better. Well, the charge was admitted; Mr. TURNER took his shares, at par, kindly furnished him by Mr. Broad, who did not take a narrow view of the matter, and thus the matter stands—whether they are sold, and at what premium, "deponent saith not."

Now approach we No. 2—the petition of Mr. HARVEY. It appears that this gentleman had presented a petition to the House against the South line, on the point of the Standing Orders not having been duly observed, and which it was contended by the chairman was impolitic, if not imprudent, inasmuch that he thought they might make better terms with the company, by getting some few shares at par (beyond the 150, those being, of course, personal property), and which, being at 2l. per share premium, would give them, on 1750 shares, something like 3500l. to go towards the expenses which had been incurred. Here the advantage of having a chairman of monetary habits, and decidedly a man of business, as well as a Member of Parliament, was rendered manifest—yet Mr. HARVEY (the secretary) seemed to think that he had a right to petition in his individual capacity as a landholder; but, as the chairman and the meeting seemed to hold a different opinion, it was understood that Mr. HARVEY would not support his petition in person, and thus it fell to the ground, so far as this company is concerned, or that gentleman individually. We believe, however, it has been laid hold of by MOORE than one who wish to throw difficulties in the way, not that they have any *locus standi*, but simply that they may exact the mopes, or a certain number of shares at par.

Thus much for No. 2, and now approach we No. 3. A word or two will suffice here, the letter of the hon. Member for Truro, addressed Mr. HARVEY, the secretary, tells the tale—the Southern have given to the Centralists 1750 shares, bearing a premium of 3500l., and, while they get the deposit of 5250l., at the same time, get rid of an opposition. We give these gentlemen much credit for acting with so much prudence, and the shareholders in the Central Line are indebted to the energetic labours of Mr. TURNER for having got them the 3500l. We have to record the secession from the company of Mr. R. THOMAS (the engineer) and of Mr. TILLY (the solicitor) from office. We believe Mr. HARVEY still retains his appointment, and we are informed that it is the intention to nominate, if not to elect, E. TURNER, Esq., M.P., as perpetual chairman.

Terms, we understand, have been proposed by the "Southern" to get the latter gentleman again over to their side, but no conclusive arrangements had been arrived at on our going to press.

Since writing the above, we have before us the proceedings in the House of Commons yesterday, of which a brief notice is only necessary. As understood at the meeting of the Centralists, Mr. HARVEY (the secretary), although having presented the petition, declined attending in support of it; while Mr. EDMUND TURNER, M.P., who was present, stated it had been withdrawn—this, however, it appears, was denied. Mr. R. THOMAS (the engineer) exclaimed, in round set terms, against the course pursued, he having been brought from Falmouth to give evidence in opposition to the South Line. His annoyance and vexation may be well conceived, from the circumstance of his being engineer to the "Central," which, from the arrangement made, by compromise of the 1750 shares, of course may be considered now as "knocked." We do think, however, that Mr. THOMAS is entitled to "a sop in the pan."

PROGRESS OF RAILWAYS.

The manifest abatement in the fevered and questionable speculation, and the steady tone of the share market, which we observed with satisfaction last week, still continues, and it is with no small pleasure that we perceive and announce this decided change. Had the alarming excitement which pervaded the Stock Exchange but a few days since, and which threatened the interest of our commerce and monetary relations, existed much longer, the country would, before long, have experienced a reaction, and a consequent panic, from which we feel perfectly convinced she would have scarcely ever recovered. Seldom has our stability been threatened so imminently; seldom, we are confident, has a more fearful catastrophe impended over our nation, and we do hope that some steps, bold, energetic, and decisive, such as the importance of the case demands, will be taken to prevent the recurrence of a danger, the extent of which but few, we believe, have any idea. Enterprise is beneficial, gambling ruinous, and reprehensible. Happily the latter, which, a few weeks since, disgraced our market, has, in a great measure, disappeared; and the results of the last week are, on the whole, unusually satisfactory. The increase in the traffic receipts for the first eight weeks of this year, as compared with the corresponding period of last year, is 100,612l., for the undermentioned twenty-five railways:

Birmingham and Gloucester	£2677	London and Croydon	£1214
Chester and Birkenhead	514	Manchester and Birmingham	3413
Eastern Counties	2173	Manchester, Bolton, and Bury	636
Edinburgh and Glasgow	1884	Manchester and Leeds	5943
Glasgow and Greenock	161	Midland Company	10314
Glasgow, Paisley, and Ayr	1597	Newcastle and Carlisle	1633
Grand Junction	5164	North Union	2889
Great North of England	1932	Preston and Wyre	899
Great Western	16117	South-Eastern and Dover	15143
Liverpool and Manchester	3246	Sheffield and Manchester	1126
London and Birmingham	8411	Ulster	124
London and Brighton	2618	York and North Midland	1070
London and South-Western	2315		
		Total	£100,612

RAILWAYS AND THE BOARD OF TRADE.

The Scotch lines still engross the attention of the Board of Trade: nine different projects, submitted for their consideration, were disposed of last evening; and out of this number but one has been rejected—altogether fifteen schemes proposed, for the accommodation of the Board and adjacent Scotch counties, have been adjudicated on; of this large number, no less than twelve have been sanctioned, and three only disapproved. We are exceedingly gratified at this disposition, evinced on the part of the Government commissioner, to countenance the extension of railway communication in Scotland; the speculations, for such schemes, have been much less questionable than many in the market, and their advancement will be the furtherance of *bona fide* enterprise, and for the benefit of important districts hitherto unconnected. The following schemes having been under the consideration of the Board, were reported on last night:—the Aberdeen, the Dundee and Perth, the Edinburgh and Northern, the Scottish Midland, the Glasgow, Barrhead, and Neilston, the Glasgow and Ayr—Barrhead and Neilston Branch; the Whitehaven and Furness Junction, the Kendal and Windermere, and the Lowestoft; the Board have determined on reporting to Parliament in favour of all the above, with the single exception of the Glasgow and Ayr Line—Barrhead and Neilston Branch.

THE IRON TRADE.

This important branch of commerce still continues its promising position, and, in proportion as the value enhances, speculators extend their operations. This evinces an anticipation of a still greater increase, and confirms our former opinion, that the advantages are not merely present, and the effect of ordinary fluctuation, but permanent and prospective. All accounts testify the progressive ascendancy of iron, and it is impossible to predict where it will stop. Most of the Welsh, Staffordshire, and Scotch ironmasters, have closed their books against any further orders at present, although the nominal prices may be quoted as follows:—Bars in Wales, 9l. per ton; ditto in London, 9l. 10s.; pigs in Glasgow, No. 1, 4l. 10s.; ditto in Wales, 5l. 15s.; rail, 10l. 15s.; nail rod, 10l. 10s.; hoop, 11l. 10s.; and steel, 12l. A further advance is looked for of 20s. per ton upon Staffordshire bars, hoops, sheets, and rods daily, as the difference in price between Welsh and Staffordshire metal must be maintained. This re-action in the British market has had its effect on Swedish iron, which, as well as steel, has, within the last week, shown an advance of 2l. per ton; a good deal of weighty business has been transacted, and the market, on the whole, has been well looking up.

FORTUNATE SPECULATION.—VICTORIA IRON-WORKS.—These works, projected in 1836 in shape of a joint-stock iron company, with an inducement to the shareholders of a return of eighty per cent., and upon which 200,000l. had been recklessly expended, afterwards offered for sale in London, 1842, with no bidders, and again piecemeal, in 1844, with similar success, have been purchased, or rather taken to, by the Monmouthshire and Glamorganshire Banking Company, to cover a debt of about 16,000l. The banking company have since effected most important modifications of the lease with Sir B. Hall, and commenced working the property themselves; but, in consequence of some of the shareholders becoming needlessly alarmed, fearing the bank may suffer in a similar manner to the original proprietors, overlooking the great change in prices of iron now, as compared with that time, objected to the bank directors carrying on the same, and finding that they (the directors) had no power to attend to the management, have judiciously availed themselves of the present prosperous state of the iron trade to sell the same to gentlemen of capital and enterprise, who, we understand, are to enter on the same immediately. The price, though we cannot vouch for the exact amount, is somewhere about 120,000l. to 125,000l., which includes all stock and plant on the premises. This sale has considerably enhanced the value of bank shares, as well as a great relief to the minds of many of the shareholders.

THE CORNISH RIVAL LINES OF RAILWAY.—The petition of Mr. HARVEY, the secretary to the Central Line, on the question of the Standing Orders having been complied with as regards the South, or Coast Line, which came yesterday under the consideration of the committee of the House of Commons, created a lively sensation, from the novel situation in which the committee were placed, and the somewhat anomalous position of the petitioner, the agents, and the engineer. We have only space for a brief notice. It appears from the evidence of Mr. Tilly, the solicitor, that a petition had been presented, signed by Mr. HARVEY, acting for others; but that gentleman had been induced to withdraw from supporting his petition by the threats which had been made use of, that he would be dismissed from his situation, and that his salary would be withheld from him, if he did not desist; and in yielding to those circumstances he had been guided by his (Mr. Tilly's) advice. The petitioner having thus withdrawn his opposition, it was contended, on the part of Mr. R. Thomas, as engineer, and interested in the proposed opposition, or Central Line, that as Mr. HARVEY had signed the petition on behalf of others, he (Mr. Tilly) should be allowed to go into evidence, although that gentleman might decline to come forward. The novelty of this application, as the chairman properly remarked, of A B being entitled to a hearing on the allegations of a petition, signed by C D, was such, although a reference had been made to the highest authority in the House, as to the course they ought to adopt, yet no precedent had been found, and hence the necessity of adjourning the proceedings to allow time. Subsequently, the committee adjourned until Wednesday, at 12 o'clock, the witnesses to prove the subscription contract, having been allowed to make their depositions.

Original Correspondence.

REAL DEL MONTE MINES.

Sir,—May I request the favour of your good offices by inserting the following few lines in connection with the affairs of the above mining company. Considerably more than a million sterling has been embarked in this concern, and I think you will agree with me, that it is high time that those whose fortunes are embarked in the undertaking should expect some substantial return. Surely, if an efficient commissioner were sent out, it might lead to the most beneficial results; it is admitted by those competent to form an opinion, that the mines present several most favourable points, which would justify one in coming to the conclusion, that it is only necessary to employ proper agents to produce results of a highly favourable character. Probably, there are no mines in the republic of Mexico of a richer or more profitable kind, if properly worked; for instance, prior to the appointment of Mr. Shoolbred as commissioner to the mines of the United Mexican Mining Company, their affairs appeared nearly hopeless, but, since his efficient aid has been brought into requisition, the shares have risen from 10s. or 12s. per share to 40s. Now, the Real del Monte Mines afford many circumstances of an encouraging character, and, instead of being as it is at present, ought to yield very different results. The shares would no longer be at the nominal value of 40s., but would probably be at 30s. or 40s. per share, if not considerably higher, and property, which a few years back were worth several hundred pounds per share, would no longer be in its present prostrate condition, consequent on inefficient management; but I do trust that brighter days are about to make their appearance, and it is to be hoped that the holders of the shares of this mining company will be firm, and not capriciously sacrifice their property at the present ridiculously low price. It is stated by those who ought to know something of this company, that their affairs will, ere long, bear a very different appearance, as all mining shares cannot very well be more depreciated than they are at present. You will, I think, agree with me, that the holders of shares in the above mines ought scrupulously to avoid parting with their interest in them under existing circumstances. Although the profit realised during the month of November amounted to only 7000 or 8000 dol., we may anticipate much higher returns in the course of the spring.

February 26.

EDMUND TURNER.

THE IRON TRADE—BLAENAVON IRON COMPANY.

Sir,—The spirited and independent manner in which you always take up the shareholders' common grievance—the apathy of directors—has induced me to solicit a corner in your widely-circulated and influential Journal. It is a well-known fact, that the consumption of iron is every week rapidly increasing, and what I have to complain of is, that our directors have had for the last nine or twelve months two new furnaces partially finished, in which 80,000 lbs. of iron, and which only requires about 20,000 lbs. to bring them into work. Now, I really think, considering the present favourable time for raising money, together with the healthy state of the iron trade, that it is not too much to say great lukewarmness manifests itself in our directors and managers. If nothing else had spurred them on, the bare fact of our poor shareholders having to put up with a loss of dividend for the last three years ought to have been a sufficient inducement to exert themselves in every way to meet the growing demand of the times. Their policy to me, as a man of business, appears quite the reverse, as I may, perhaps, have occasion to bring before your notice shortly. I do hope the shareholders of the Blaenavon in May next will support me in calling for an investigation into this and several other important matters.—London, Feb. 27.

A SHAREHOLDER.

THE TARIFF—PIG LEAD.

Sir,—As you are well aware, there is a duty of 20s. per ton on pig lead (foreign), and 10s. per ton on ore retained for home consumption. The latter—the raw material—is enumerated among the 490 articles doomed by Sir Robert Peel to be free from all import duties in future—and also red, white, black, and chromate of lead—but lead in the shape of pig is omitted. May I ask you, if this omission is an error of the printer, or is it to remain in Sir Robert's new tariff unaltered? J. W. London, Feb. 27.

DUTY ON WOOD USED FOR MINING PURPOSES.

Sir,—Permit me, through the columns of your valuable and widely-circulating paper, to call the attention of the mining interest to the great advantage which would occur by the free admission into this country of prop wood for the mines. At present, in consequence of the duty, no foreign timber can be used for that purpose, and in consequence of the great demand for larch for railroad purposes, the coalmasters are obliged to use the thinnings of plantations, composed of birch, poplar, Scotch fir, and other kinds of soft perishable woods, which, in consequence of being easily affected by the damp of the mines, soon decay, and cause incalculable annoyance, and loss of both life and property, all of which might be avoided by permitting the tops of the Baltic pines to come in duty free, and, of course, the size being within certain limits, no injury could be sustained by its being improperly used for other purposes in the place of the regular timber. I trust that this subject will be taken up by more able advocates than myself.—Newcastle, Feb. 25.

A MINER.

MINING IN CORNWALL—PRACTICAL MANAGEMENT.

Sir,—As you appear to feel interested in the welfare of the working miner, I have no doubt you will insert this letter, which exposes the unfairness of the present system of working, whereby many a sober hard-working miner, who is risking his life and ruining his constitution for the benefit of the adventurers, is not able, with every economy, honestly to maintain his family, while those that are lazy are encouraged to be so. In the old system it was customary to set for two months, price in sight, and either side to risk the ground's improvement or otherwise, and then to set again for price in sight; but now they are only to work a certain length, and then their take is out, which, although it is not of much consequence, often stops them from exerting themselves to their utmost; and if it proves that they have got more than a certain sum—say 3l. per month—the next bargain that is set to them, instead of being set according to price in sight, is set so as to bring both months back to the standard; or, what is often the case, a part of the ground is not measured, but left to be put with the next month's earnings, and the price of ground opened accordingly, so that men have no encouragement to exert themselves; for, if they work hard and earn a little extra wages one month, it is sure to be taken from them the next; or, in case the ground turns in their favour, they may as well be idle half their time, for they have no advantage in getting more than a certain price; and the adventurers lose, in not having their ground spent and proved, as fast as they otherwise would. But if, on the other hand, the ground turns against the miner, or it proves a bad take, he has no extra price the next month to make up the deficiency; and it is much oftener this way than the other, so that the month's wages, instead of being what is nominally allowed, say 3l., is often not more than 25s., 30s., or 2l.; and as the miner has to go four and five weeks without money, and thereby obliged to live much on credit, and, consequently, not able to purchase at the cheapest rate, and in populous districts obliged to pay heavy house-rent, and often obliged to maintain himself and his family separate, he finds himself unable to meet his creditors, and the honest man is bowed down and often counted as a rogue.

Nor does the fault exist, in the main, with the agents of the mine, but in the management of the mine being carried on in London, among those who do not understand the practical part; for instance, the London directors order that the men are not to get more than 3l.—men take their ground, and, after working a little, it turns in their favour; if they then continue to work brisk, and the length they have to drive lasts them the month, they get, say 4l., or 4l. 10s., or it may be more; if this were sent to London, the captains would get a reprimand; so, to remedy this, a part of the ground is not measured, so that the miner has no chance, and he finds he is no gainer by the ground turning in his favour, and he may as well work easy as hard; or, if the length of the ground set lasts only part of the month, the next take is set so as to bring back the price to its level. These are things which are little known by the London men, but perfectly understood by every practical agent; and it would be well if adventurers would select trustworthy agents, practical men, which are to be found, and submit the management of the mine to them—they would then have much more work done for their money, and their ground would be spent and proved much quicker.

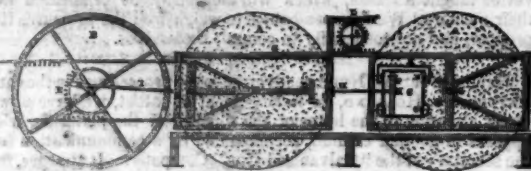
Public companies have, no doubt, been deceived by unprincipled agents, but I doubt if the loss in this way was ever proportionate to the constant drainage by the expense of keeping offices in London and directors' salaries; and it would be well for the adventurers to consider the case of the poor miner, who labours for their profit, and see that he has a proper share of the money expended. If a mine cannot be worked without poor men being half starved, or deep in debt, which is abundantly the case among

the sober and industrious, even in mines making large returns, they had better be given up, or else others take who have more money. I have no doubt some practical man meeting with this, will be enabled to explain it more fully.

AN ADVENTURER.

THE LAWS OF MOTION—NEW INVENTION.—No. VI.

Sir,—As you are pleased to reserve room in your columns for my humble offerings, I herewith forward another engraving, with the aid of which I shall endeavour to describe as well as I can the application of my invention. In this cut, as in that of last week, proportions or location of gearing is not regarded—my present object being only to show in the plainest manner the form and action of the machine, upon one elevated side of which the cut directs your eye. (The dotted surfaces within the two right-hand circles,



marked A, are solid sections of cylinders, which, in connection with their framework or bodies, I call cars, which move to and from one another upon a perfect plane; the left-hand circle, marked B, is a fly-wheel; G is a part of the framework or bodies of the cars; F is a side view of the fixed framework upon which the car-bodies slide; C is a steam-engine cylinder, cut vertically through the middle, and laying horizontally, which is fixed to the right-hand car body; M, the steam-box; N, the supply valves, with their shanks, protruding through the steam-box; H, the piston, the end of the rod of which is fixed to the left-hand car body; O, the escape valves, their shanks playing through braces bolted to the cylinder; L, the racks of either car; K, the pinion which unites them; D, combined racks and lever, which work upon a bearing on the end of the left-hand car body, and extend across the fly-wheel; E, the pinion, which works between the racks, and should be of the same radius as that which the crank describes, but is shown larger for the sake of conspicuity; I, the connection rod, with a slot on the end, which permits it to play back and forward on the crank. The cut represents the cars near their extreme points of separation, the pinion on the fly-wheel free from the racks, and the crank of the fly-wheel in the act of taking up the momentum of the cars from the connection rods. When the crank shall have reached its centre, the cogs on the pinion will have passed round, so as to admit a connection with the cogs of the lower rack, when the racks are tripped upwards, uniting the motion of the fly-wheel with that of the cars, which unity continues until the crank is a little past the half centre, when the connection rod overtakes the crank, and casts the momentum of the cars again upon it, at which point the cogs of the pinion have passed round, so as to free it from the rack, which will fall when the crank gets to the centre, and again unite the motions of the cars and the fly-wheel. The peculiar action of the steam may be understood by looking to last week's Journal.—Feb. 27.

LEWIS KNAPE.

THE EXPLOSION OF THE "IRK" LOCOMOTIVE-ENGINE.

Sir,—Explosions in locomotive-engines on railways have hitherto been confined to two—indeed, we had supposed them absolutely safe, till startled from our reveries and fancied security, by the cases in question. The bursting of a pipe, or even pipes, in the body of the cylindrical part of the locomotive-engine is a bagatelle; not so when the explosion occurs in connection with the fire-box, and the three deaths occasioned by the explosion of the *Irk* locomotive, on the Manchester and Leeds Railway, are terrible trophies of its formidable power. I beg now to submit to you a few remarks connected with the cause of this catastrophe, as having occurred to me by calmly reflecting on the evidence adduced on the inquest, confirmed by some inquiries I have made on the subject. The question is of immense importance to the community, and may well warrant attention. I cannot but think that the mere leakage of the engine may be safely left out of consideration, and had nothing to do with the circumstances of the cause of the explosion. Many locomotive-engines are chargeable with leakage, and yet perform their work well. By John Hall's evidence, &c., we have ample proof of the employment of *cannel coal*, as well as *wood*. Sudden evolutions of flame ought to be most jealously guarded against; since, as a natural consequence, the partial and local action of bursts of flame must give rise to sudden extractions of highly elastic steam, which will impinge on the dome immediately over the point of extrication. Let it never be forgotten here, that water, even at 212 deg., is a *bad conductor* of caloric, and will not immediately diffuse the evolved temperature. The only safety valve that could have been of the least use in this case was that immediately over the fire-box, and there appears sufficient evidence to prove that it had been tampered with, and was, in all probability, at the time of the accident, *fast*. The other safety valve, at the further extremity, would, under the circumstances in question, afford no immediate relief, even if it had been free to act, in an emergency so sudden as the instantaneous outburst of steam of an intensely elastic character, and I have no doubt that the power of the imprisoned steam very far exceeded, in the case of the *Irk*, a pressure of 60 lbs. on the square inch—a power, indeed, quite sufficient for the effects which followed. Mr. Fairbairn, the maker of the unfortunate engine, seems to have made a very elaborate display of technical computations for the consideration of the jury, and, however the formulae and their adjuncts might have suited the arena of an institute of civil engineers, these displays seem to have been entirely out of place before a jury on a coroner's inquest, who cannot be supposed capable of appreciating such mathematical abstractions. My own decided opinion is, that Mr. Fairbairn has signally failed in accounting for the *darkened* portion of the rent copper. That it proceeded from an imperfection or flaw in the copper, I cannot doubt, and hence this (the weakest) part gave way, and formed a rent for the first outburst of steam. Mr. Fairbairn's opinion on the cause of the explosion is certainly *new* to chemical science—viz., that "a body of water and vapour were discharged on the glowing embers of the furnace, whereby the carburated hydrogen and carbonic oxide were charged with their equivalents of oxygen, and so explosion," &c.!!! I am afraid I should have been inclined to write a severe commentary on this singular opinion, if he had not avowed himself ignorant of "theoretical chemistry." Mr. Fairbairn may be assured that the "British Association" has too much to do with rock salt lenses, and other notable things, to attend to such minor considerations as explosions, whether in steam-boilers or in coal mines! According to Mr. Fairbairn, if both valves had operated freely, explosions were impossible, and, within certain limits, this may be true, if the copper had been sound. It is altogether impossible for me to have received a more triumphant confirmation of my views, already fully eliminated in your pages, than the explosion of the *Irk* has supplied. It is found in what is called by Mr. Bury "an undue pressure in the boiler"—arising, unquestionably, from the sudden extrication of highly elastic steam of tremendous power and pressure. The recoil had "thrown the engine up," "caused entirely (according to Mr. Bury) by the pressure of the steam." There can be no reasonable doubt about the matter. The impress of the recoil in the pit was sufficiently emphatic, and the engine was blown up, on the principle of the rocket and its recoil. I think Mr. Fairbairn's deductions are founded on an error in judgment—that he is a most honourable man there can be no doubt.

Hull, Feb. 25.

J. MURRAY.

THE VACUUM OCCASIONED BY EXPLOSION.

Sir,—That a vacuum is occasioned by the explosion of "fire damp" in mines is self-evident, but your correspondent, Mr. Rogers, may be assured that it can only be of momentary duration, and the revulsion which supplies the vacuum with carbonic acid gas is instantaneous. At this moment asphyxia supervenes, from the spasmodic collapse of the epiglottis, the immediate effect of the action of the carbonic acid gas. Were it so contrived that water was present, asphyxia would be prevented, as exemplified in the case of those who were thus saved in the explosion which took place lately in the Margam Colliery.

Hull, Feb. 24.

J. MURRAY.

MANUFACTURE OF BRICKS.

Sir,—I am anxious to call your attention to a subject of deep importance, especially to civil engineers, and to the public generally—I mean the manufacture of bricks. Should the clay of which bricks are made be contaminated with fragments, however minute, of chalk or limestone, the consequences may be very serious. On transference to the furnace, the carbonate is converted into quicklime, and, when the bricks are moistened, they necessarily burst, and crumble to pieces. In the case of bricks used in tunnels, this is of paramount moment, and will explain the destruction of the tunnel of Compiègne, between Belgium and Rhenish Prussia. The fault lay with the brickmaker, not the engineer. I have seen the destruc-

tion of an earthenware vessel from this cause, as soon as water was poured into it. Qy.—May it not be sometimes done in order to multiply the demands for earthenware? In the case of bricks, the question assumes a very serious and important complexion. J. MURRAY. Hull, Feb. 24.

LAW OF PATENTS—GALVANISED IRON.

Sir,—The remarks in your valuable paper of last week, and the law report under the head of "Galvanised Iron," being, as I read them, calculated to mislead the public as to the present state of the question, I beg leave to request that you will have the goodness to insert the following letter from the solicitor (Mr. Wadson), acting for the patentee, which will, I have no doubt, have the effect of showing the public that the patent is substantially established, and I beg further to call the attention of your readers to the caution contained in the present and recent Numbers of your Journal, as a warning to all parties infringing this important and valuable patent.

I am, Sir, your most obedient servant,

3, Mansion-house-place, London, Feb. 28.

S. VINCENT, Sec.

PATENTEE'S HOLLAND.

DEAR SIR,—In answer to your letter of yesterday, I beg to say that the view I take of the verdict in this case, is that it is substantially a verdict for the plaintiff. Of the eight issues in the action, the jury have actually decided seven in the plaintiff's favour, including the important points that the invention was, at the date of the patent, a new one in this country; that the same was, and is, of public use; and that the defendants are infringers of the invention. The fifth issue, that the patentee did not sufficiently describe the nature and manner of working his invention, the jury, as you are aware, decided for the defendants, but all the plaintiff's counsel contend in opinion, that the decision is an erroneous one, and against evidence, and that the decision can be set aside; and I need not tell you, who are so well acquainted with the practical manufacture of the patented article, that on this, the only point on which the plaintiff's patent is not immediately succeeded, there can be no difficulty in establishing most conclusively, and without a shadow of doubt, the affirmative of this issue. I, therefore, do not hesitate to say, having in the plaintiff's favour the jury's actual decision upon all issues but one, and possessing the power, without doubt or question, of establishing the incorrectness of the decision on the remaining issue, that the verdict may be considered substantially a verdict for the plaintiff, whereby it would be established that the plaintiff's patent is valid, and that the defendants are infringers of it. In reply to your other question, I beg to say that my clients, perfectly concurring in the view taken by their counsel of the matter, intend, at the first opportunity, to take steps for rectifying the erroneous decision on the fifth issue; and that I have also their instructions to continue, without delay, the proceedings against Messrs. J. and E. Walker of Gospel Oak Works, near Birmingham, agents of the defendants, Morewood and Rogers, for their infringement of the plaintiff's patent.

I am, dear Sir, your truly,

Samuel Vincent, Esq., Secretary to the Patent Galvanised Iron Co., 3, Mansion-house-place, London.

RT. WADSON.

RAILROADS IN SPAIN.

Sir,—It has been often urged, that the politically-disturbed and insecure state of Ireland, prevents, in that country, the employment of English capital. How is it, then, we find more British capital is about to be employed on Spanish soil? where one has not only to contend with a country more unsettled, but, likewise, a depraved and a corrupt Government, whose bad faith is proverbial, and a demoralized and bigotted people, famous for their enmity to strangers, and all foreign innovations. But, could this be remedied, and Spain raised from her degraded and disgraceful position, as a civilized nation, it would still require some secure statistics, on which to form a railroad—which, however flatteringly developed on a London prospectus, people on the spot are unable to find out. A project for a railroad from Avilez, in the province of Asturias, to Leon, has been approved of by the Cortes—the same Cortes, who, in the past year, approved of 214 murders for political offences, and the extermination of the whole family of General Zurbano—this embraces a distance of thirty leagues, no great length certainly, was there any traffic likely to pay even the simple interest of the capital employed. Leon is twenty-three leagues from Valladolid, and from thence to Madrid is thirty-six leagues, the road from Leon to Valladolid is not yet finished, and should the projected railroad come into effect, it is very unlikely the Government will do any more to it, as they are well aware, to give even the shadow of a return, the embryo company must continue the line to Madrid. On the whole route, from Valladolid to Avilez, with the exception of Leon and Oviedo, there are not any towns of note, but dirty, wretched, poverty-stricken, and full of ignorant, stupid, and mud, in Castile, and dry stones in the Asturias, the population varying from five to twelve hundred souls; nor is there any decent hotel or inn (*posada*), that can compare with a road-side, also-house in England. The coach, which starts from Oviedo to Leon once a week, from thence to Madrid, carries but nine passengers when full; this is not often the case, and occasionally it has been so unprofitable, that the proprietors have suspended it, and it is now a great question, whether it pays its expenses. Assuming, as railroad estimates generally do, that the traffic will be doubled, this will give them eighteen passengers per week. The province of Asturias is separated from Castile by mountains, several hundred feet in height, they are called the *peñas de Asturias*, and present considerable engineering difficulties, which would require tunnels driven through hard limestone several miles, or else an infinity of stationary engines, to drag the trains up the steep and precipitous mountains; this, I have no doubt, would be considered a bagatelle by the talented engineers who will be employed on the line, provided they have the money to follow out their plans. But this done, with what are they to carry on their railroad? The staple productions of the Asturias are said to be coal and iron. Are they to carry coals to Leon, a town of about twenty thousand inhabitants, possessing no manufactures, and not requiring fuel for domestic purposes more than four months in the year? to attempt to supply the adjacent villages with that article would be useless, as the plains of Castile, producing solely corn, they have such a quantity of straw, that they are obliged to use it as fuel; and, could coals be brought to them at a very cheap rate, they would be unable to purchase—the peasantry, having no employment but agriculture, live on their own produce, very little money is in circulation, and they are scarcely able to buy the wretched rags in which they are clothed. The Asturias abounds in wood, the population live a great prejudice against coal—the sole expense of wood is the *vatting*, which, as they have no employment, is to them infinitely cheaper than coal, which they must purchase, although, in many instances, the coal seams are cropping at their doors untouched. To attempt to supply coals beyond Leon, to Valladolid, Segovia, and Madrid, is impossible to maintain the idea, as by the time they reached those points, they would be dearer than the costliest of woods. Is it iron they are to transport into a country which already possesses a market overstocked with that very article, from the works of Malaga and Andalusia? These works, possessing good roads and every advantage, supply at present more iron than Spain and her colonies can consume; it is a well known fact, that there are stores in Seville and Malaga of this metal, which the producers are unable to dispose of, even at a reduced price; and when the railroad from Alicante to Madrid is finished, they will be able to supply the capital, and all parts of Spain; as far as Valladolid, at a much cheaper rate than at present—the freight from Malaga to Alicante being a trifle, with a fair wind not being more than two days' sail; the Cadiz railroad will pass through Seville, and the rich iron district of Andalusia, direct to Madrid. But, perhaps, I am premature in speaking of Asturias iron, as, although much has been talked about it, no one, at present, has seen it. The other mineral deposits of the Asturias are yet in their infancy, and it will take some time, if ever they are developed to advantage. The railroad from Cadiz to Madrid will carry all the colonial produce, and from thence to Burgos, Segovia, Valladolid, and the interior provinces of Spain. What colonial produce is requisite to supply Asturias and Leon will form a very inconsiderable item, as the population being poor, the consumption is but scanty. The ports of Gijon and Avilez are small, not capable of receiving vessels of more than from 103 to 150 tons burthen, and those very few: with the dangers of the Cantabrian coast, every one is familiar—with some winds vessels dare not make it; at Avilez there is a rocky bar, and to make either of these two ports havens of security, would involve an expense of more than 200,000l. Wool, which is produced in the province of Extremadura, now goes to France, via Biscay, and if the railroad is made no further than Leon, there would be no saving in transporting that article thither, with a view to shipment, as it would probably be more expensive than the present transit. Castile produces much corn, which is consumed by the Havana, which colony depends solely for her supplies on the mother country; this might be exported from Gijon and Avilez, probably at a less expense than from Cadiz, though the latter port from its ability to take large supplies of colonial produce, would materially reduce the freights, both out and home. In the Asturias a great quantity of maize, or Indian corn, is grown—very little wheat is consumed by the inhabitants, maize being so much cheaper and nearly as nutritious. Wine, at present, is dear here, probably the railroad might make some reduction in the price of that article, but there can be no great consumption, the province abounding in cider, which can be purchased at one-eighth the price, and is consumed by all classes. To carry wine for exportation is ridiculous; it is shipped now from Cadiz, and, on the completion of that railroad, would defy competition with any part of Spain. When the coal mines of Asturias are worked, I believe they will be able to carry coals from the interior of the province to Avilez or Gijon for exportation, eventually to the amount of some thousand tons, though this will be some time

Mining Correspondence.

ENGLISH MINES.

HOLMBUSH MINING COMPANY.

Feb. 24.—In the cross-cut south of the pump winze, at the 120 fathom level, the ground still continues favourable. In the 110 fathom level, west of Hitchins's shaft, the lode is fifteen inches wide, and worth 182 per fathom, and still promising improvement; in the stope in the back of this level, east and west of Mitchell's winze, the lode is sixteen inches wide, and worth 244 per fathom; in the stope west of Lebb's winze the lode is fifteen inches wide, and worth 282 per fathom; in the stope west of the pump winze the lode is eighteen inches wide, and worth 164 per fathom. In the 100 fathom level, west of Hitchins's shaft, the lode is still in a disordered state; in the stope in the back of this level, east of Forest's winze, the lode is one foot wide, and worth 121 per fathom; in the stope west of Hitchins's shaft the lode is fourteen inches wide, and worth 144 per fathom; in the stope west of the south cross-cut the lode is sixteen inches wide, and worth 257 per fathom; in the winze sinking below this level the lode is twenty inches wide, and worth 454 per fathom. In the ninety fathom level, west of Hitchins's shaft, the lode is small and poor; the winze in the bottom of this level is communicated with the stope in the back of the 100 fathom level, west of the south cross-cut; in the stope in the back of the ninety fathom level the lode is fourteen inches wide, and worth 164 per fathom. In the rise in the back of the eighty fathom level the lode is six inches wide, producing stones of ore.

WHEEL MARY MINING COMPANY.

Feb. 24.—We are still driving on the adit level, on the Middle lode, towards the cross-course; the ground is fair, the lode is large, and still improving, with a most promising appearance, containing good stones of yellow and black copper ore, and rich for silver. We are now about seven fathoms in depth.

NORTH HOLMBUSH MINING COMPANY.

Feb. 24.—In driving on the course of the lode, east of cross-cut, at the sixteen fathom level, the lode has much the same appearance, composed of capel, mundic, killas, and spar.

GREAT WHEEL MARTHA CONSOLIDATED MINES.

Feb. 26.—Our regular report day is not until Saturday next, but I have thought it prudent to send a short report at once, as you will, doubtless, be gratified to learn that we have a most decided improvement in the new mine; the ten fathom level, going west, I am happy to say is still improving, the lode is now five feet wide, two feet of which is turning out ore of a good quality, and the remainder of the lode is very thorough. In the twenty fathom level west the lode is five feet wide, composed of mundic, spar, and copper; as we proceed in this level, we may expect an increase of ore, as we shall be getting under the shoot in the level above, and immediately under which we calculate on having a rich course; in the twenty, going east, the lode is four feet wide, composed of capel, mundic, and copper, and presenting a kindly appearance. In the deep adit we are driving by the side of the lode, ground favourable. The engine-shaft in the higher mine is now sunk 7 fms. 5 ft. below the seventy; the lode is seven feet wide, composed of mundic, spar, and capel, impregnated with ore. In the sixty east the lode is eighteen inches wide, composed of spar, mundic, and capel, spotted with ores. In stopeing the bottoms of the sixty the lode is four feet wide, eighteen inches of which is saving work, and I am glad to say that our prospects continue to improve. We are about to put down some pits on the spot, where it appears, from dialling, that Wheel Maria lode passes.

BEDFORD UNITED MINING COMPANY.

Feb. 24.—At Wheel Marquis the cross-cut south, at the seventy fathom level, has been driven about three fathoms, and the ground still continues favourable; this level is at present hindered, owing to increased water from the fifty-eight fathom level east—it is hoped, however, in the course of a few days, we shall be enabled to resume driving; in the fifty-eight fathom level east the lode is two and a half feet wide, and worth 102 per fathom. No lode has been taken down in this level since last report. The lode in the forty-seven fathom level west is two feet wide, producing good saving work. In Clemens's winze, sinking in the bottom, the lode is two feet wide, and worth 82 per fathom. The lode in the winze, sinking below the forty-seven fathom level east, is two feet wide, and worth 204 per fathom. The lode in the deep adit level is two feet wide, producing good stones of ore. The tribute department is without important alteration. At Ding-Dong the lode in Thomas's engine-shaft, and the twelve fathom level east, remains without alteration. At Wheel Tavistock the lode in Phillips's engine-shaft is two feet wide, composed of gossan and spar—a very kindly lode. At Delve's Kitchen we are clearing the adit level, about twenty fathoms west of the present company's workings; the lode in the back (from about twenty fathoms in length, the distance already cleared) is about two and a half feet wide, composed of very fine gossan, spar, and iron—altogether a very kindly lode indeed.

UNITED HILLS MINING COMPANY.

Feb. 25.—In the eighty fathom level, in the eastern end, the lode is six feet wide, four feet on the north part ore of fair quality, improved since survey day; in the western end the lode is four feet wide, ore throughout, but coarse in quality. In the seventy fathom level, in the eastern end, the lode is two and a half feet wide, one foot on the north part good ore; in the western end the lode is three and a half feet wide, producing but a small quantity of ore. In the sixty fathom level, east of eastern shaft, the lode is three and a half feet wide, two and a half feet good ore. West of James's the lode is four and a half feet wide, two feet on the north part producing ore of average quality; in the eastern stope the lode is four feet wide, two feet on the north part good ore; in the western stope the lode is four feet wide, three feet good ore. In the fifty fathom level cross-cut the ground is more favourable for driving than last reported; the lode in the winze below this level is three and a half feet wide, two feet of which is good ore. In the thirty fathom level the lode is eighteen inches wide, nine inches on the north part producing ore of fair quality. In the ten fathom level the lode is one foot wide, producing some good stones of ore, looking promising. At Wheel Sparrow, in the fifty fathom level, eastern end, the lode is four feet wide, producing some stones of ore; in the western end the lode is three feet wide, ore throughout, of a coarse quality. In the forty fathom level, in the eastern end, the lode is eighteen inches wide, poor at present; in the western end the lode is three feet wide, producing but little ore; in the winze the lode is three feet wide, six inches on the north part producing good ore. In the thirty fathom level the lode is four and a half feet wide, eight inches on the south part producing some good stones of ore.

CALLINGTON MINING COMPANY.

Feb. 25.—In the ninety fathom level, south of Johnson's engine-shaft, the lode is worth 84 per fathom; in the north end, we are driving through tribute ground. In the eighty fathom level, driving north, the lode is worth 104 per fathom; in the south end, the lode is producing silver-lead ore. The sixty fathom level is driving through tribute ground. At the north mine, in the eighty fathom level, driving south, the lode is worth 54 per fathom. In the sixty fathom level we are driving through tribute ground. In the forty fathom level the lode is producing silver-lead ore. The caunter lode, at the seventy fathom level, both east and west, continues about three and a half feet big, of just the same character, producing copper ore. Our tribute pitches continue to look well. January ores (sixty-four tons) have sold at 182 1/2 per ton.

CONSOLIDATED TRETOIL MINING COMPANY.

Feb. 24.—The lode in the sixty fathom level, west of Henwood's shaft, is nine inches wide, producing some good stones of ore; price for driving 72 per fathom; ditto, east of ditto, is one foot wide, and worth 64 per fathom; price for driving 64 per fathom—tribute, when set, 10s. in the 12. The lode in the rise, in the back of the fifty fathom level, east of ditto, is eighteen inches wide, and worth 64 per fathom; price for driving 44 per fathom.

WEST WHEEL JEWEL MINING ASSOCIATION.

Feb. 24.—The lode in the 100 west, on Wheel Jewel lode, is nine inches wide, composed of spar, mundic, and spots of ore, the ground about it hard; the lode in the rise, in the back of the same level, east of cross-cut, is two and a half feet wide, composed of spar and a little black ore, but not sufficient to attach any value thereunto. We have intersected a limb of a cross-course at the eighty-five, east on ditto, in the past week; we are now driving south to cut the lode; the lode in the winze, sinking below this level, is worth 44 per fathom. The lode in the eighty-five east, on the south branch, is small and unproductive; no lode taken down in the western winze in the past week; the lode in the winze, sinking below the same level, east of cross-cut, is worth 64 per fathom. The lode in the forty-two, east on Buckingham's lode, is worth 34 per fathom. The lode in the thirty east, on Morecam's, is three feet wide, composed of spar, mundic, and occasionally stones of yellow ore. The lode on Wilkinson's engine-shaft is three and a half feet wide, very promising for ore. The lode in the fifteen, east on ditto, is eighteen inches wide, with good stones of ore in the bottom of the level.

CORNUBIAN MINING COMPANY.

Feb. 24.—Since my last of the 17th inst., we have got the accident (then reported to you as having occurred to the home water lift) repaired, and the engines are working regularly, water in fork, &c., not much, however, has yet been done. In the eighty-six fathom level we have driven west of the engine-shaft about seven feet; Chiverton lode there is two feet wide, chiefly flookan and soft spar, and promising to make lead; in the east end, at this level, the lode is much of the same character, but not so large. At the seventy-eight fathom level, going east, we have cut through the north lode, and find it eighteen inches wide, of mundic and spar, letting down a great deal of water, and which has caused the pitches working over in the bottom of the seventy to be drained. In the several pitches working, we have nothing new to notice; the men are working well, and most of them raising fair quantities of work. The last parcel of lead, computed thirty tons, sampled 16th inst., is bought at 134 7/8 per ton.

RICHARD ROWE.

TRELLEIGH CONSOLIDATED MINING COMPANY.

Feb. 22.—The lode in the forty-four, west of Good Fortune, is twenty inches wide, looking kindly, but not much ore. The lode in the thirty-four west is improved, and is now twenty inches wide, with good stones of ore. The lode in the twenty west is two feet wide, worth 44 per fathom. The adit west is a promising lode, fifteen inches wide. We have no alteration in any of the other parts of the mine, the water having been in during the week; we are now working to satisfaction, and forking the water as well as could be calculated on, and we hope early next week to get most of the men to work in their respective places.

W. SYMONS.

COOK'S KITCHEN MINE.

Feb. 22.—In the cross-cut south from flat-rod shaft, at the seventy fathom level, we have about four fathoms more to drive to cut North Tincroft lode; the price for driving is 62 10s. per fathom. The pitches in the bottom of the sixty fathom level we have this day set to stope on tutwork, not having seen the south wall below the sixty; we shall now have an opportunity of proving the south part of the lode. The pitch in the bottom of the fifty we have set at 6s. 8d. in the 12, which we think is a fair tribute. Chapple's lode, in the 121 east, we are carrying three and a half feet wide, which is worth 94 per fathom for tin; the ground continues hard in the cross-cut at the ninety fathom level to cut Eudey's lode. Dunkin's lode, in the 170 west, is two feet wide, producing stones of tin; as soon as we have communicated this level to the winze sunk under the 160, about twenty-five fathoms further west, where we had a very good lode for tin, we shall then be enabled to work that ground to great advantage, which we cannot do now, on account of the water. We have this day set a new pitch in the back of the 160, on this lode, twenty fathoms further west than the above winze, at 6s. 8d. in the 12 for tin and ore, which we consider a fair tribute. In the cross-cut north, at the 140 fathom level, the ground still continues favourable; we have about six fathoms more to drive, to cut the lode. We have not yet cut the lode in the cross-cut south from Rogers's shaft, at the twenty-nine fathom level. The Druid shaft is now down about fifteen fathoms from surface, but are obliged to suspend it on account of the water. Our tin pitches throughout the mine are still looking favourable; also those on copper on North Tincroft lode.

A. EUDBY.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY.

Marro Velho, Dec. 8.—Produce for November 10,887 oits., 104,000 lbs. Troy from 264 1/2 tons of ore = 4,169 oits. per ton; 427 tons of rejected ore form part of the quantity of ores stamped, which, as nearly as can be estimated, have yielded about 1 1/2 oits. per ton. The western Cachoeira ores, 811 tons, have this month yielded 4,62 oits., and yet only 5 per cent. of these ores were rejected. It really appears as if Captain Verran's expectations were being realised, that these ores improve in depth. This section of the mine, the West Cachoeira, which has only been opened for stopeing during a few months, has furnished this month 811 tons of ore, while the East Cachoeira has furnished only 446 1/2 tons, and yet is of considerably shorter length than the latter section, but very much wider. It is needless to observe, that had a full supply of ores from the mine been furnished, so as to avoid having recourse to the rejected ores, the produce would have been 11,308 oits.

Mine Report.—The pitwork in the Gamba is all completed and working well; the water is not quite in fork. The ores supplied during the month have been entirely from the United Mines and the Cachoeiras; the driving in the West Cachoeira, through the lode which still separates it from the Bahu is progressing slowly—the stone is so dreadfully hard; the importance of laying open this ground, which is at grass (surface), may be easily appreciated, since Mr. Helms-Reichen tells me it contains fifty-six square fathoms of lode; and, though the company has never worked on this part of the lode, Mr. Crickitt always said it contained ore, only second in quality to the Bahu ores; this ground ought to be driven from both ends, to lay it open in any reasonable time, but there are no hands for it. Captain Verran is constantly saying in his reports that he requires some twenty more hands; but he tells me, on the question being put to him, how many more men he could employ for the benefit of the mine—stopeing, timbering, opening out ground, making discoveries, &c.—if he had an unlimited force to draw from, that he could employ 200 more men. The new road to the mine on entering the establishment is just completed, and an excellent job it is. A piece of timber, containing about 117 cubic feet, passed along it yesterday without straining the bullocks in the slightest degree; to pass such a piece down the old road nearly the whole team of forty bullocks would have been fastened behind the cart to hold it back, and prevent the wheels from being crushed.

Mechanics' Report.—With the exception of the Gamba pitwork, buildings of various descriptions have occupied the attention of the mechanics. To-morrow the Lyon stamps will be stopped, for the purpose of taking out the old gudgeons from the wheel axle and putting in new ones; this work, I have already stated, will occupy about four days and nights; it will necessarily affect the month's produce, but there is no cause of complaint, since these stamps have worked nearly seven years without stopping one whole day at any time for repairs.

Cost for November.—\$20,581 870, or £2165 7s. 8d.

Reduction Report.—The rainy season is now far advanced, and I am sorry to say, we have had but very little rain; the only machinery which has experienced the want of water is the Herring stamps, pumping-wheel, and hauling engine at the mine—all the other machinery being covered by the water from the Christmas, from whence we have had a continued full supply. The weather has been extremely sultry, and the Brazilian miners in this neighbourhood are complaining dreadfully of the want of rain for their leads.

BRAZILIAN COMPANY.

Cata Branca, Dec. 9.—The new hauling machine is at work, but, from the present appearance of the bottoms, I do not look to any improvement in the produce. The high ground of the Smdidouro Mine continues of the same order.

Dec. 18.—An accident has occurred to the axle of the hauling machine, which, in our present position, I have not thought it worth while to replace. The rains, have at length set in earnest, and for the last 10 or 12 days have been incessant.

Dec. 23.—The gold return for the past week shows some improvement in the quality of the stone from the No. 6 stope, from which the engines have been lately supplied; the water not being yet in fork in the bottoms, but will be so, I hope, in a day or two.

Gold return for the week ending Dec. 6	13	15	6	12
" " " " " "	13	15	6	12
" " " " " "	13	15	6	12
" " " " " "	13	15	6	12

Total in three weeks.....19 9 19 13

IMPERIAL BRAZILIAN MINING ASSOCIATION.

Gongo Soco, Dec. 13.—The rains seem at length to have set in earnest; the pumps in Vesey's shaft have now been five days at work, and the water has already been drained to the fifty-five fathom level. I hope in my next report to advise that operations have been resumed in the bottom of that shaft, as well as in the fifty-five and sixty-two fathom levels. It gives me the greatest uneasiness that the poverty of the mine still continues. The 9 lbs. 1 oz. 1 dwt. from the washing tubs is from the accumulation of several months, and consists of the very minute particles which escape from the "buses" during the washing, and which subside, and are preserved, as the washing water is not permitted to escape. Cata Preta presents nothing new, and I regret that the prospects there are still far from encouraging.

Dec. 23.—The rains, of which my last mentioned the commencement, continued for a fortnight, without intermission for a single day, and the consequences have been very prejudicial. Portions of all the water courses (regos) have been destroyed; other parts have been filled with rubbish, either fallen from their sides, or brought down by mountain torrents; whilst there is scarcely a tunnel or superficial part of the mine which has not more or less suffered. The road to the western part of the mine had been rendered impassable by the effects of the rains before my last report; it has now been altogether swept away; the cost and delay for the construction of a new one will not be material. The tank near the village, which had contained the sediment of many years, we were preparing to wash; this has been broken down, and much of its contents swept away. Minor damages have been sustained at Taboleiro, and for two days most of our mining force was employed on repairs of the regos. Much still remains to be done, but I am happy to say sufficient has been already effected to set the usual works again going; what is yet undone, can be rectified when we are more at leisure. I am happy to say that every member of the establishment, even to the lowest, exerted himself to the utmost, and there are several whom, were it not invidious, I should have ventured to have recommended to especial notice. It is with much regret I have to mention, that one of our free Brazilian labourers was drowned in attempting to cross the Secorro River. Ursula had a most providential escape, as the ground beneath her feet subsided, and fell into the mine, and she was extricated whilst falling. I had myself left the very spot within about five minutes. The gold troop, under Mr. Fitzpatrick's command, I propose dispatching on the 28th inst.; but, owing to the heavy rains, I do not look for an expeditious journey. I have to lament the continued poverty of the mine, and that I see no immediate prospect of improvement. A few days more will enable us to commence exploring the western ground, on which Capt. Treloar places so much dependence, and I will have it prosecuted with the utmost vigour and constancy—a few months must determine its value.

Gold Report.

From the stamps	Total raised
Dec. 3 to 10	15 18 0
" 11 to 20	6 11 4 0
Seventeen days	21 29 4 0

Total from 1st January to 21st December.....13 7 9 0

CARADON UNITED MINES.—A meeting of the shareholders was held on Tuesday last in London, O. SMITH, Esq., in the chair, when a call of 2 1/2 per share was made. The reports from the mine were very encouraging, and a steam-engine is to be erected forthwith.

before they are worked to any extent. Much notice has not hitherto been taken of them; M. Aguado has worked one mine, and, I believe, some English company are thinking of working others. The projected line, there is no doubt, will be of great advantage to the province, and probably to the projectors; what benefits can possibly result to the speculators, is a question those on the spot are unable to discover; but, like many schemes of the same nature, hidden sources of unheard wealth, only known to the initiated, may burst forth, and pour fortune in the laps of those who can appreciate the advantages and the golden stream which this El Dorado of the Andes, having previously had the courage and prudence to embark the trifling capital required for this herculean undertaking.

Oviedo, Feb. 13.

AN IDLER IN THE ASTURIAS.

IMPROVED MANUFACTURE OF CAST STEEL.

Although it has long been known to chemists, that the only essential difference between cast-iron and cast-steel consisted in the relative proportions of carbon contained in the two substances, it has yet been found impracticable hitherto to produce the latter substance at a less cost than from four to eight times that of the pig-iron from which it is made. For instance, if pig-iron, made with charcoal and the relative materials suitable for the manufacture of steel, cost 64, it will be found, that according to the processes now universally used, cast-steel cannot be made from such iron at a cost of less than 294 per ton, in the ingot; and for the superior descriptions, the raw material of which bears a monopoly price, the cost of cast steel in the ingot, comes to nearly double this price. The cause of this cost arises from the great waste and labour necessary to deprive the pig-iron, in the first instance, of the whole of its carbon, amounting to about 5 per cent., and to reduce it into malleable iron; this iron is then recombined with about 1 per cent. of carbon, in the process of cementation, forming blistered steel, and to produce cast-steel it is necessary to melt the blistered steel in crucibles of fire clay and run it into moulds. If the cost of pig-iron, of medium quality, fit for making steel-iron, be 64, a ton, the loss on converting it into bars is one-third, or 21 more; the average cost of labour, fuel, and other charges, on making a ton of charcoal bars, will be 54 more; the foreign merchant's profit, freight, insurance, import duty, and other charges, will be 42 a ton more; the profit of the importers in this country will be 24 a ton more; making the cost of bar-iron, of medium quality, fit for making steel, 194, a ton to the steel manufacturer here; in making this iron into steel he incurs a further expense of 17 10s. for conversion into blistered steel, and about 74 10s. for making the blistered into double shear or cast-steel in ingots; making the cost of these two articles of medium quality about 294 a ton; and all this cost of 294, a ton is necessary to get rid of the 4 per cent. of carbon in the cast-iron, beyond the proportion required to form cast-steel. It may be observed, that, by a recent improvement, cast-steel can be made capable of welding to iron with the same facility as bar-steel, and the manufacture of the latter article is rapidly giving place to the increased use of cast-steel. Before this improvement, it was calculated that the quantity of cast-steel annually made in England was about half the whole quantity of steel manufactured; at present it probably exceeds two-thirds of the whole quantity. The solution of the problem of producing cast-steel direct from cast-iron, without incurring the enormous expense hitherto inseparable from the old process, has engaged the attention of scientific men, since the time of Reaumur, whose work appeared nearly a century ago, to the present time, without having produced any result of the least value. The process of making natural steel, or that of decarburizing pig-iron, to a certain extent in a charcoal refinery, and then drawing it into bars under the hammer, has been known for ages; and, for a long period, was the only known method of making steel in Europe; but the steel thus made is inferior to all other kinds that are manufactured, and its quality is such that it is not used in this country for any purpose whatever; even this inferior article, however, costs about three times the price of the pig-iron from which it is made, and its price quoted in the Prices Current of the day, in bond for export, is about 174 a ton. At length, however, this object is announced as having been accomplished by a gentleman, and who states the apparent paradox, that he is able to produce cast-steel at a cost not exceeding that of pig-iron of a quality suitable for the manufacture of steel. Of the importance of such a discovery, supposing it brought into practical operation, some opinion may be formed, from considering that steel made in this manner may be sold at half the present selling price of that of medium quality, made in the usual way, at a profit of 100 per cent.; and that the quality of it, according to the statement of the discoverer of the process, will be equal to that now made from the most expensive foreign iron; it is also stated, that the steel is suitable for every purpose for which steel is now used—from coach springs to surgical instruments—and that, consequently, this process must entirely supersede all those at present in use for making the various descriptions of steel now used in the arts. The quantity of steel of all kinds now annually manufactured in this country alone, is estimated at 25,000 tons; if the average value of all kinds of shear and cast-steel in ingots be taken at 284, a ton, the value of the whole quantity manufactured will be 7,000,000; if cast-steel can be made by the new process, so as to admit of its being sold at half this price, with a profit of 100 per cent., there will be a saving to the public of 3,500,000, a year, and a profit to the manufacturers of the steel, of 1,750,000. It is stated to us that a suitable material for this manufacturing steel may be had in great abundance in this country, and the manufacture can be carried on to any extent, commensurate with the increasing consumption, which will be the certain consequence of such an enormous reduction in the price to the consumer, without being dependant, as the steel manufacturers of England have hitherto been, upon foreign countries for the supply of their raw material, and the security of the best qualities of which has hitherto enabled the possessors of such material to obtain for it an enormous monopoly price. The steel made by the new process would all be of uniform quality, and trials on a large scale, even in this stage of the matter, have satisfied some of the best judges in this country, that it is impossible to surpass it as regards its quality.

GASPE FISHERY AND COAL MINING COMPANY.

We last week briefly noticed the formation of a new company, entitled the "Gaspé Fishery and Coal Mining Company," for the purpose of more fully developing the fisheries in the Gulf of St. Lawrence; an appendix to the original prospectus has since been issued, in which the advantages of the fisheries are prominently discussed. It appears that the district of Gaspé, in which the operations of the company will be chiefly conducted, comprises a population of from 15,000 to 20,000 souls. The soil generally is excellent; thus tending to raise prospects of the prosperity and increase of its inhabitants, especially as the climate is healthy, and the fisheries holding out a probability of cheap food, a large emigration may be anticipated. The demand for labour, which will necessarily follow an increase and influx of trade, will alone collect an increasing population, and fresh settlements will consequently be formed. This, of course, will not only tend to advance the interests of the company, by a rapid rise in the value and consumption of their various commodities, but an increase in the price of the fee simple of the properties. The expectations for the prospective income and expenditure of the body, founded on apparently good and sufficient data, are very sanguine, and anticipate a net return from cod fishery per annum of 28,233, and the lumber trade, 14,617 10s.—making a total of 42,850 10s.; the expenditure not being expected to exceed 12,000, including 7,500, for the payment of interest on capital, at 5 per cent., leaving a profit of above 30,850,—or more than 20 per cent. on the capital of the corporation. It will be seen that, in the above estimate, no mention is made of the coal trade, although the most confident hopes of success are entertained by the company. The Port Daniel Coal-field is situate in the immediate vicinity of the harbour of the same name, twenty-seven miles east of the property at Bonaventure, and fifteen miles west of that at Pabos, comprising about 3500 acres of land. The sections have been selected so as to secure to the company the exclusive possession of the entire coal-field. The estates are purged from all seigniorial rights, and are held in free and common socage. The harbour, at Port Daniel, is the best within the Bay of Chaleurs, and the only one on the shore between Gaspé and Dalhousie—a distance of 140 miles—in which vessels can load in summer and autumn. The approach to it is also more direct than to any other harbour in Lower Canada, which will, it is expected, ensure a transfer of the whole trade in coal to this district. The coal-field commences about one mile and a half from the mouth of the river, and extends about four miles in a direct course inland. The coal, after careful investigation, is pronounced to be highly bituminous, and suitable for all domestic purposes, as well as for steamships, and all other uses whatever. This property, however, is at present to be let on lease—the company receiving from the lessees, in lieu of royalty on all coal raised,—and they anticipate no difficulty in finding persons willing to undertake the speculation.

IMPROVEMENTS IN AIR OR GAS ENGINES.

BY JOSEPH ROBINSON, ESQ.

The vast importance of any invention whereby the above object could be attained, must be manifest at a view. Some such design has long been wanted, and, if the results answer the anticipations of the inventor, their value and utility will be soon perceived. The proposition appears simple, and at the same time ingenious, and we should feel satisfaction in seeing it brought to practical maturity and completion. The invention consists of an inflammable gas or vapour engine, whereby power is obtained by the expansion consequent upon the combustion of the vapour of spirits of turpentine, or other inflammable liquid or air, by the aid of atmospheric air, within a cylinder similar to that in the steam-engine; whilst carburetted hydrogen may be used, the inventor prefers liquids, as, by their employment, the engine may be applied to locomotion. The vapour-generator into which the liquid is admitted, is governed by a cock; the retort, having tubular openings through it, is surrounded by a case, so as to leave a space for the passage of heated air for warming the retort, under which is a small furnace lamp, the outer case of the retort being perforated to admit heat. A valve-box is connected with the cylinder, so as to give a supply of the combustible gas and atmosphere at each end alternately; the interior of this valve-box is truly cylindrical, and to it is fitted a cylindrical tube, to revolve within the box, a bevil-wheel being on its shaft, driven by gearing connected with the shaft of the fly-wheel. The tube is closed at its ends, and the interior is divided into three chambers, in all of which are two openings covered with stopping valves, which close by their own gravity. The openings are exhaust openings, admitting the residuary contents of the cylinder to pass into the chambers. The tubes are also exhaust tubes; the air and vapour resulting from the combustion of the compound is highly heated, and, passing through, will communicate sufficient heat to the retort to evaporate the liquid, thus rendering the further use of the furnace unnecessary. The manner of supplying the atmospheric air is by means of a double-acting pump, having a valve at each end; the air from this pump passes through a trench by means of an air-tube into the retort, within which is an agitator, made to revolve by the current of air entering the retort, acting upon its wings for the purpose of mixing the air and vapour. An air regulator is placed upon the air trunk, in the top of it being a valve for excessive air to escape by. An air-tube leads also from the air-trunk directly into the lower chamber of the valve-box; the opening into the tubes may be regulated by a revolving valve or conical key, like that of a cock, within the trunk of which the valve represents the handle, by turning which the tubes may be partially or wholly closed; the piston of the main cylinder may be made solid and of metal, though it is advisable to be on the expanding system. The method of communicating motion to the fly-wheel, and to the air pumps, is thus: the piston-rod is connected by a joint to a vibrating arm, lever, or bar, pointed at the lower end to the vibrating-rod. To the arm, or lever, the piston-rod of the air pump is also connected, and from the upper end of the lever the rod or shackle extends to the crank, on the fly-wheel shaft. The vibrating arm is supported in its place by the pendant rods, which also preserve the parallelism of the piston-rods. The direction of the engine may be reversed, by means of a clutch throwing the wheels into gear. At each end of the cylinder there are openings, through which ignition is effected. The valves which close the openings are removed a little after the crank has passed its dead centre, the cylinder being then filled with the gaseous compound; there being then a slight excess of pressure above that of the external air, there will be a momentary jet of the ignitable mixture outwards, and the supply being at that instant cut off, and the piston travelling onwards, there will be an immediate draught inwards; as this is taking place, the ignition will be effected with certainty, and the valve then closed. To prevent the main cylinder from becoming too highly heated, the invention proposes to enclose the cylinder and its immediate appendages in a case, through which cold air may be blown by means of a rotatory fan, or other blowing apparatus, which may be worked by the engine in any convenient manner. By the above invention the inflammable air or gas may be supplied in regulated proportions, and a pressure produced within the cylinder slightly exceeding that of the atmosphere, at the moment of opening one of the ignition orifices, which outward pressure is immediately succeeded by an inward draught.

Current Prices of Stocks, Shares, & Metals.

ENGLISH AND FOREIGN STOCKS.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Consols, Money, 95½	Dutch, 24 per Cents, 634
ditto, Account, 95½	ditto, 4 per Cents, 58½
24 per Cents, 104	Russian, 5 per Cents, 118½ 119½
Reduced 3 per Cents, 103½	Spanish, 5 per Cents, 27½
Long Annuities, 12-16 3-16	ditto, 3 per Cents, 40½
Bank Stock, 212 213	Brazil, 5 per Cents, 88½
Exchequer Bill, 58 60 pm.	Chili, 6 per Cents, 102 103
Bolivia, 5 per Cents, 101 2	Colombia, 6 per Cents, 133 144
Danish, 3 per Cents, 89 90	Mexican, 5 per Cents, 352 64
Portuguese, Conv., 5 per Cents, 61 1	Peru, 6 per Cents, 30 1

From our own Correspondents.]

LATEST PRICES OF IRISH STOCKS.—3 per Cent. Consols, 99½; to 99¼; 3 per Cent. Reduced, —; 3½ per Cent. Stock, 103½; to 102¾; 3½ per Cent. Debentures, 94½; to 94; Bank Stock, 91½.—Dublin and Kingstown Railway, 240½; Drogheda, 80½; Galway and Wexford, 116½; Great Southern, 117½; Limerick and Waterford, 100½; Dublin and Glenties, 100½; Belfast and Ballymena, 44½; Limerick and Waterford, 100½; Dundalk and Enniskillen, 44½; Wexford and Carlow, 3½.—Hibernian Bank, 36½.—National Bank of Ireland, 154½; Royal Bank, 144½; National Insurance, 40½; Patriotic Assurance, 114½; Mining Company of Ireland, 12½; Wicklow Copper Mine, 10½; City and County Steam Company, 53½; Dublin and Glasgow Steamship, 53½.—**Real Estate.**—The Commercial Union Building Office, 53½.

CURRENT PRICES AT LIVERPOOL—THURSDAY EVENING.

Stock.	Closing pr.	Sales.	Stock.	Closing pr.	Sales.
Aberdeen Railway	22	21	London & South-Western	74	78 1/2
Barnley Junction	61	63	London and York	7	7 1/2
Belfast and Ballymena	39	33	Lynn and Ely	41	54
Blackburn & Accrington	5	5 1/2	Lynn and Dereham	18	18 1/2
Blackburn and Bolton	34	34 1/2	Leeds and West Riding	61	62 1/2
Blackburn and Preston	14	15 1/2	Limerick and Waterford	4	4 1/2
Birkenhead, Manch., &c.	131	133 1/2	Manchester and Bolton	65	64 1/2
Birmingham & Gloucester	74	74 1/2	Manchester & Birmingham	564	565 1/2
Bristol, Wdg., & Liverpool	74	74 1/2	Manch., Bolton, & Bury	128	130
Bristol and Exeter	824	823	Manch. & Rosendale	104	104 1/2
Bristol and Gloucester	57	58	Manchester & Buxton	34	34 1/2
Caledonian	61	71 1/2	Manchester and Leeds	1394	1400
Cambridge and Lincoln	24	25 1/2	Midland Stock	1254	1256 1/2
Chester & Birkenhead	38	39	Mullingar and Athlone	2	2 1/2
Chester and Holyhead	7	8	Newcastle and Carlisle	122	123 1/2
Churney Valley	74	74 1/2	Newcastle & Darlington	48	50
Cork and Brandon	34	35 1/2	North British	134	134 1/2
Cork & Limerick, Direct	14	15	North Kent	2	3
Direct Northern	2	2 1/2	North Union, Stock A.C.	137	138 1/2
Dublin and Belfast	52	6	ditto B.	81	82 1/2
Dublin and Cashel	11	11 1/2	North Wales Mineral	11	11 1/2
Dublin and Drogheda	78	79 1/2	Norwich and Brandon	16	17 1/2
Dundak & Enniskillen	2	2 1/2	Oxford, Worc., & Rugby	32	34 1/2
Dundee and Perth	34	34 1/2	Preston and Wyre	244	250 1/2
Eastern Counties	17	17 1/2	Scottish Central	4	4 1/2
Edinburgh and Glasgow	624	624 1/2	S. Helens & Runcom G.	224	222 1/2
Edinburgh & Granton	14	15 1/2	Sheffield and Lincoln	14	14 1/2
Edinburgh & Northern	11	11 1/2	Sheffield & Manchester	106	105 1/2
Edinburgh and Bedford	11	11 1/2	Shrewsbury & Gr. June	54	54 1/2
Glasgow, Dumfries, &c.	151	151 1/2	Shrewsb. Wolverch., &c.	41	42 1/2
Glasgow and Greenock	151	151 1/2	South-Eastern	411	413 1/2
Glasgow, Paisley, & Ayr	65	66 1/2	South Wales	41	41 1/2
Grand Junction	221	223 1/2	Trent Valley	19	20
Gr. Grimby & Sheffield	24	25 1/2	Ulster	444	456 1/2
Gr. North of England	188	193 1/2	Went York & Oxford	24	24 1/2
Gr. Western	17	18 1/2	Yarmouth and Norwich	27	28 1/2
Harwich	14	14 1/2	York & North Midland	105	107 1/2
Huddersfield and Manch.	51	52 1/2	York and Selby	68	70 1/2
Huddersfield & Sheffield	41	44 1/2	Wexford and Carlisle	2	3 1/2
Hull and Selby	83	84 1/2	Boulogne and Armentis	54	55 1/2
London & Windermere	44	45 1/2	Can. Central of France	134	141 1/2
Lilkenly Junction	11	11 1/2	Lyons and Armentis	54	55 1/2
Manchester and Bolton	24	26 1/2	Northern of France	54	55 1/2
Manchester and Preston	51	52 1/2	Orleans, T., & Bordeaux	7	7 1/2
Leeds and Bradford	224	224 1/2	Paris and Lyons	3	3 1/2
Leeds and Dewsbury	3	3 1/2	Paris and Orleans	464	466 1/2
Leeds and Thirsk	3	3 1/2	Paris and Rouen	424	426 1/2
Liverpool & Manchester	204	206 1/2	Paris and Strasburg	3	3 1/2
Liverpool and Preston	74	75 1/2	Paris and Strasburg	3	3 1/2
Liverpool & Birmingham	224	226 1/2	Paris and Strasburg	3	3 1/2
London & Brighton	594	603 1/2	Sambre and Meuse	3	3 1/2
London and Croydon	184	191 1/2	Strasbourg and Basle	124	126 1/2
London and Portsmouth	2	2 1/2	Tours and Nantes	14	15 1/2
13, Castle-street and Stock Exchange, Liverpool.			Jamaica	284	294 1/2

JOHN GRAVES.

LEEDS, THURSDAY.—We have not had quite so good markets for most stocks, with the exception of Hull and Selby, and Leeds and Bradford, both of which are very strong, the former at 92½, and the latter at 23½ per share. Brightons were done as low as 57½ on Tuesday, but to-day have improved to 59½; it is now definitely settled that Mr. Peter Jarka is to go there, and under his management the line will never pay less than 6 per cent. Manchester and Birmingham, which declined to 61½ on the precise nature of the

ferms between them at the London and Birmingham getting known, and much required for to-day at 65 $\frac{1}{2}$; it being certain that the contemplated lease will meet with strenuous, and, in all probability, successful, opposition at the meeting to-morrow. Darlington, the old shares at 25 $\frac{1}{2}$ p.m., and the new at 21 $\frac{1}{2}$ q., are very tempting if the magnificent prospects held out by Mr. Hudson are to be realised. Midlands and Eastern Counties are very un-
derestimated in the market value, and, consequently, so, till the report on the London and York is in, the market will be somewhat depressed. This is the only one we do not say, that if the Board of Trade decide in its favour, it will be in the very teeth of the opinions expressed by them in the South Eastern Report, and to the utter stultification of their previous acts. Dovers are very speculative at 40 $\frac{1}{2}$ p. share; an alteration in the money market would work some change with the airy premiums on the new stock of this com-
pany. The London and York, at 50 p.m., and the London and Birmingham at 50 p.m., Junctions at 47 $\frac{1}{2}$ p.m., Thirsk at 32 $\frac{1}{2}$ p.m.; Dewsbury at 35 $\frac{1}{2}$ p.m., and Huddersfield and Sheffield at 29 $\frac{1}{2}$ p.m., are much as when we last wrote.

Berwicks	£14 p. sh.	Leeds and Bradford, new	£19½ p. sh.
Darlington	49	Ditto ditto quarters.....	—
Dewsbury	3½	Midland	125 <i>ex div.</i>
Great North of England	191	Ditto, No. 3	—
Leeds & West Riding Junction	6½	Ditto, £40 shares	84 p. sh.
Leeds and Thirsk	4½	Manchester and Leeds.....	140
Leeds and Bradford (with new)	—	West Yorks	3½

HULL, THURSDAY.—During the period that has elapsed since our last reports, up to yesterday, the market has been dull, with a disposition to realise, and, in some instances, to press sales; this morning, however, we note an altered appearance, and during the next few days we look for rising prices. Hull and Selbys have advanced fully 5*t*. per share since yesterday, and the half shares are much in request.

EDINBURGH, THURSDAY.—Aberdeen, 27 $\frac{1}{2}$; Arbroath and Forfar, 15 $\frac{1}{2}$; Ballochney, 1; Caledonian, 7 $\frac{1}{2}$; Dundee and Arbroath, 33 $\frac{1}{2}$; Dundee and Perth, 34 $\frac{1}{2}$; Dalkeith and Leith Branch, 7; Edinburgh and Glasgow, 62 $\frac{1}{2}$; Edinburgh, Leith, and Granton, 13 $\frac{1}{2}$; Edinburgh and Northern, 12 $\frac{1}{2}$; Glasgow and Ayrshire, 65 $\frac{1}{2}$; Glasgow and Garnkirk, 30 $\frac{1}{2}$; Glasgow and Greenock, 15 $\frac{1}{2}$; Glasgow, Dunfermlie, and Carlisle, 47; Monkland and Kirkcaldy, 30 $\frac{1}{2}$; North British, 134 $\frac{1}{2}$; Scottish Central, 44 $\frac{1}{2}$; Slamannan, 16 $\frac{1}{2}$; Wishaw and Coltness, 39.

COPPER ORES

Sampled Jan. 12, and sold at Farquharson's Hotel, Truro, Jan. 27, 1845.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
United Mines	127	£3 9 0	Trethellan	92	4 3 0
ditto	113	5 14 0	ditto	99	3 11 0
ditto	103	5 19 0	ditto	79	5 7 0
ditto	101	5 11 0	Fowey Consols	84	2 15 0
ditto	97	4 2 0	ditto	79	5 3 0
ditto	96	6 10 0	ditto	63	3 12 0
ditto	86	3 17 0	Grambler & S. Aub.	87	4 18 0
ditto	84	4 6 0	ditto	43	4 16 0
ditto	83	6 18 0	ditto	39	0 10 0
ditto	81	5 4 0	Wh. Frudence	53	4 3 0
ditto	80	6 2 0	ditto	51	3 3 0
ditto	78	4 1 0	ditto	40	2 17 0
ditto	77	4 0 0	Tresavean	70	4 8 0
ditto	76	5 1 0	ditto	67	2 18 0
ditto	69	4 4 0	Treleigh Consols ..	76	4 4 0
South Cardon	92	5 13 0	ditto	44	6 12 0
ditto	75	5 3 0	North Downs	75	5 18 0
ditto	64	11 0 0	ditto	69	6 19 0
ditto	61	5 5 0	Creoggraw	36	4 17 0
ditto	43	4 15 0	ditto	31	3 16 0
Hallanbeagle	86	4 15 0	ditto	14	3 5 0
ditto	64	2 11 0	Penstruthal	30	6 0 0
ditto	48	5 6 0	ditto	27	3 15 0
ditto	40	6 1 0	ditto	22	12 0 0
ditto	32	2 10 0			

TOTAL PRODUCE

United Mines.....	1390 .. £	6719 19 6	Wh. Prudence.....	144 .. £	494 12 0
South Caradon	370 ..	1789 7 0	Treasure	138 ..	506 14 0
Hallenbeagle	270 ..	1151 10 0	Tevelagh Consols..	120 ..	611 14 0
Trehellan	253 ..	1015 19 0	North Downs	102 ..	630 3 0
Fowey Consols.....	225 ..	858 13 0	Creeg Braws	91 ..	339 11 6
Grambler and St.	169 ..	652 4 0	Penstruthal	79 ..	550 10 0
Aubyn					

Average standard, 106*l*. 14*s*.—Average produce, 7.—Average price per ton, 0*l*. 0*s*. 0*d*.—Quantity of ore, 3265 tons.—Quantity of fine copper, 227 tons 13 cwt.—Amount of money, 15,319*l*. 10*s*. 6*d*.—Average standard of last sale, 93*l*. 16*s*.—Average produce ditto, 9*l*.

Copper ores for sale on Thursday next, at Serpell's Hotel, Pool.—Mines and Parcels.—North Boskear 1144—Consolidated Mines 719—Tincroft 510—East Wheal Crofty 346—Dolcoath 300—Wheal Providence 275—South Wheal Bassett 360—South Boskear, &c., 145—Par Consols 206—Fowey Consols 204—Wheal Harriet 115—West Wheal Jewel 97—Wheal Trewaras 90—South Wheal Francis 75—Wheal Clifford 55—Godolphin 54—Tretton 11—Harriet's Drive 31.—Total, 4267 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and parcels.—Carn Brea 551—Wheal Prosper and Wheal Friendship 495—United Hills and Wheal Sparrow 254—Botallack 250—Levant 206—Wheal Bulver 206—Fowey Consols 201—Cook's Kitchen 171—Trenow Consols 161—Wheal St. Andrew 67—Wheal Trenwith 52—Wheal Rodney 45—Spearn Major 9—Pembroke 1—Wheal Trenance 1.—Total, 2670 tons.

COPPER ORES

at SWANSEA, for sale March 5.—Chili 61—57—53—54—53—52—14—82—31—29. Santiago 105—100—95—81—72. Cobre 105—98—34—76—64. Bacuranao 90—56—48. Knockmahon 120. San Jose in Cobre 56—33—22. Ballymurtagh 38—25—19. Vigra and Cloga 53—16—2. Carnarvon 38. Molland 12—10.—Total, 1956 tons.

Copper ores for sale March 12.—Cobre 935—Bearhaven 416—Lackamore 56—Copiapo

LATEST CURRENT PRICES OF METALS.

LONDON, FEBRUARY 28, 1845.

	£	s.	d.		£	s.	d.
SPALTER—On spot, p. ton	22	0	22 5	STEEL—Swedish taggot ..	0	13	0
" For arrival	21	13	22 0	COFFER—Sheet & sheathing, p. lb.	0	0	94
ZINC—English sheet	0	30	0	" Old	0	0	94
QUICKSILVER—1 p. lb.	0	0	4 6	" Cake....p. ton	0	0	84 0
IRON.—" London	0	0	0	" Tile	0	0	83 0
" English bar, bolt				" Chalk	0	7	0
and square, p. ton	10	0	9 10	TIN—English block	0	3	15
" Nail rods	0	0	10 0	" bar	3	16	3 16
" Hoops	10	15	11 0	" Foreign, Banca	3	11	3 12
" Sheets, single	0	0	12 0	" Straight	0	0	3 8
" double	0	0	12 0	" Russian	0	0	12 0
" treble	0	0	14 10	TIN PLATE—IC, p. box	1	8	1 9
" Rails in Wales	5	5	9 10	" IX	1	14	1 15
" Bars, in Wales	8	15	9 10	LEAD—English....p. ton	0	0	16 15
" Pig, No. 1, Welch	4	15	5 0	" Liverpool	0	0	16 10
" No. 1, Clydach	0	0	10 0	" Spanish London	0	0	16 10
" Foreign—Swedish	0	0	12 10	" American	0	0	—
" CIND	0	0	15 10	" (Liverpool)	0	0	—
" P&I	0	0	16 0	" Sheet (London)	17	15	18 0
" Gourieff	0	0	—	" Rod	21	10	18 0
" Stanchion	0	0	—	" Wire	0	0	18 0
" Swedish keg	17	10	18 0	" Patent shot	0	0	19 0
STEEL—Swedish keg	17	10	18 0	" Patent shot	0	0	19 0

* Iron 5s. to 7s. 6d. per ton less at Liverpool.

† s. per box less at Liverpool.

REMARKS.—Great activity still prevails in the iron market, and prices of all descriptions are rising. No Swedish metal has arrived, but the nominal price for arrival was high, and a further advance expected. The price of copper was stationary, but the demand limited. Tin had advanced 2s. per cwt., and the spot cash in bond was very firm.

LEAD.—A great demand still prevails for this metal, nor does the confidence of holders appear to be affected by the provisions of the new tariff. A small parcel of Spanish lead, just arrived, has been sold for 16*l.* 5*s.* in draft, and 20,000 pigs of British lead have been purchased by the trade at 17*l.* for common, and 19*l.* per fodder for refined.

COAL MARKET, LONDON.

MONDAY.—Price of calls per ton at the close of the market:—Admir's Main 16—Bude's West Hartley 16 6—Carr's Hartley 16 6—Chester Main 16 6—Eden Tanfield 15 6—Holywell Main 17 6—Old Ponton 15 6—Ord's Redheugh 15—Evensworth's Hartley 16 6—Fenton's Ponton 16 6—Gibson's Moor Bute 16—Tanfield Moor 19 6—Twizell Main 17 6—West Hartley 16 6—Whitburn Main 16 6—Widdowson's Clark and Co 16—Clennell 16—Hilda 17 6—Karnay 15 6—Belmont 19—Braddyl's Hutton 20 3—East Hutton 17 3—Haswell 20 3—Houghall 18 6—Hetton 20 3—Hylton 17 6—Lambton 20 and 20 3—Lumley 18 6—Shotton 20—Stewarts' 20 3—Whitehall 18 6—Lambton 20 3—Leith 18 6—Longwood 18 6—Mann 18 6—Mann 18 6—Thames 18 9—Drynamun 20—Morgan's Stone 21 9—Killingworth 17—Shipie arrived, 45.

WEDNESDAY.—Buck's West Hartley 16—Carr's Hartley 16—Chester Main 16—2 at Tanfield 15 6—Baisters' West Hartley 15 6 and 16—Holwell Main 15 6—Nelson's West Hartley 16—Old Pontop 15—Ord's Redhugh 15—Pott's Primrose 16—Ravenworth's West Hartley 16—Tanfield Moor Butte's 16—West Wylam 16 6—Wylam 15 6—Wall's End 16—Lewick and Co. 18 3—Clark and Co. 16—Clennell 15 6—Gibson 18—Gosforth 18 3—North Durham 17—Eden Main 18 6—Braddyll's Hetton 20 3—Hawell 20 3—Houghall Hetton 20 and 23—Hylton 17 6—Lambton 19 5 and 20—Lumley 18—Stewart's West Hartley 16—Tanfield 16—Kilncoe 16—Kilncoe 19 2—Leasingthorne 16—Adeleide 19 3—Coundon Tees 15—Fox 17 3—Gordon 16 and 3—St. Helen's Tees 17—Woodfield 16 3—Copenen Hartley 16 6—Lewis's Merthyr 21—Morgan's Stone 21 6—East Hartley Netherton, 16 6.—Ships arrived, 51.

FRIDAY.—Adair's Man 16—Carr's Hartley 16—Chester Main 16—Davison's West
Hartley 17—Hastings' Hartley 16—Hollywell Main 17—Morrison's Hartley 15—Nelson's
est Hartley 16—Old Pontop 16—Ord's Bedheugh 15—Ravenworth's West Hartley 16
South Pelaw 15 6—Taylor's west Hartley 16—Townley 15 6—Twyzell Main 15 6—
est Hartley 17—West Wylam 16 3—Wall's End Clennell 16—Heaton 17 6—Hilda 17
Hillingworth 17—Wharfedale 17 9—Eden Main 18 6—Braddyl's Hecton 20 3—Houghall
Hecton 30 3—Hylton 17 6—Lambton 19 9—Lumley 17 6—Pemberton 17 9—Stewart's
Hartley 16 6—Thorncliffe 16 6—Thorncliffe 16 9—Thorncliffe 16 9—Thorncliffe 16 9—
Washingthorne 18—Trimdon 19 6—West Warkdale 16 9—West Warkdale 16 9—West
Brown's Deanery 18 3—Richardson's Tees 17—Seymour Tees 18 9—St. Helen's
9—South Durham 18 6—Tees 19 3—West Hecton 16 9—Cowpen Hartley 16 6—Der
nwater Hartley 15 6—Hartley 16—Lewis's Merthyr 21—Morgan's Stone 21 6—Sid
ley's Hartley 16—West Hartley Netherthorn 16 6—Woodseale Coke 27.—Ships arrived, 106.

LONDON GAZETTE—BANKRUPTS.

TUESDAY.—J. H. Dansday, Glasshouse-street, Regent-street, tailor.—J. Brown, Skins-street, Snow-hill, perfumer.—L. Davis, Ewhurst, Sumex, wine agent.—W. H. Sumner, High-street, Hoxton Old Town, grocer.—C. Lee, Wakes Colne, Emex, miller.—J. Gray, Manchester, upholsterer.—C. Murcott, Birmingham, factor.

HIDAY.—J. Welch, Rog-cross, Holloway, licensed victualler—J. and C. Green, Bough-road, Southwark; corn dealers—J. B. and R. Gordon, Poplar, coopers—W. and J. Es, and James Hogg, Newcastle-upon-Tyne, builders—Mary and F. J. Rawlings, Chelham, cabinet makers—J. Ralph, Bath, innkeeper—J. Dalton, Salford, Lancashire, brewer—E. Bayley, Cheswardine, Shropshire, apothecary.

PRICES OF MINING SHARES

BRITISH MINES.

Shares.	Company.	Paid.	Price.
25	Andrew & Boscaawen	3d.	30
96	Bel	—	—
4000	Bellford	28	6
100	Botalack	175	500
20000	Blithaif Iron	70	10
8000	Blisavon	50	10
10	Brewer	—	75
100	Creighton Mining Ass.	25	—
128	Cosheen	30	200
114	Charlestown	—	300
3000	Connabun Lead Co.	3	4
128	Comfort	—	35
2560	Co's Kitchen	—	15
1000	Car Broca	15	90
1000	Callington	16	24
256	Caradon Wh. Hooper	—	6
128	Caradon Consols.	—	150
256	Caradon Copper Mine	1	4
128	Caradon Mines	1	50
256	Caradon United	1	12
128	Creag Brava	120	100
1900	Combmartin	—	10
1000	Conn Perran	—	7
240	Craddock Moor	1	50
186	Dolcoath	—	100
1000	Durodon	2	5
10000	Durham County Coal.	45	75
128	East Pool	—	50
94	East Wheal Crofty	—	450
128	East Wheal Rose	50	1500
512	Fowey Consols	—	120
244	Gambrey & St. Aubyn	—	92
100	Great Consols	1000	900
1000	Godelup	—	35
256	Gonadens	—	100
10000	Hibernian	124	1
1000	Holmbush	14	38
128	Hallenbeagle	—	50
1000	Hanson	5	5
160	Levan Moor	1	2
128	Lanarth	—	180
128	Lanarth & Penstruthal	—	150
1000	Lewis	3	6
128	Ludcott	3	4
2000	Mining Co. of Ireland	7	132
2500	Marke Valley	10	5
100	North Rodd	—	530
300	North Holmbush	—	5
100	North United	29	20
256	North Wheal Rose	194	90
256	North Treburget	1	5
15000	Northern Coal Co.	23	2
600	Old Penobbe Slate Co.	29	45
128	Par Consols	—	770
256	Penhalow Moor	15	55
10000	Rhymney Iron	50	21
256	Rose Consols	10	4
400	South Towan	70	14
57	Spenn Moor	70	—
100	Siray Park	43	18
128	South Wheal Rose	—	250
128	South Wheal Rose	5	660
256	St. Austell Consols	4	13
256	South Wheal Rose	2	5
128	South Yeoland	8	9
130	Threlhan	5	53
128	Trevava	—	60
56	Tresavan	—	350
128	Tregadock	5	2
128	Tockenbury	80	90
256	Trenow Consols	—	125
120	Treviskey and Barrier	61	240

Shares.	Company.	Paid.	Price.
5000	Treleigh Consols.	5s.	10
9500	Tamar Consols	3	10
6000	Trevellick	7	10
128	Trevellick	15	—
4000	United Hills	5	—
100	United Mines	1000	500
6000	Wicklow Copper	5	15
512	West Fowey Consols	40	—
128	Wheat Franco	13	15
128	Wheat St. Andrew	65	—
137	Wheat Virgin	—	50
128	West Caradon	40	750
50	Wheal Vor	500	—
3845	West Wheal Jewel	104	75
130	West Threlhan	8	50
200	Wheal Rose	30	60
256	West Wheal	6	—
1000	Wheal Harriet	—	10
128	Wheal Penrose	—	10
128	Wheal Providence	16	120
68	Wheal Clifford	—	500
128	Wheal Albert	10	12
128	West Basset	10	10
128	Wheal Acland	13	50
128	Wheal Sisters	234	80
99	Wheal Seaton	150	600
128	Wheal Henry	—	25
256	Wheal Hope	7	—
4000	Wheal Martha Consols	3	5
130	Wheal Trevellick	100	117
200	Wheal Prudence	30	25
256	Wheal Norris	14	12
128	Wheal Treven	4	8
107	Wheal Trevelton	10	12
128	Wheal Catherine	54	15
128	Wheal Providence	—	75
128	Wheal Robins	—	75
256	West Wheal Treasury	3	20
128	Wheal St. Cleer	78	30
128	Wheal Reeth	1	60
128	Wheal Gill	174	45
128	West Cargill	2	15
256	Wheal Mar	—	10
256	Wheal Concord	—	10
128	Wheal Venland	24	10
256	West Wh. Friendship	—	5

FOREIGN MINES.

5000	Alian Mining Company	14	—
10000	Asturian Mining Co.	—	—
10000	Anglo-Mexican Co.	100	—
3474	Ditto Subscription	25	1
200	Bolanos	150	—
10000	Ditto Serip	15	—
10000	Bresilian Imperial	51	—
10000	Caba Branca (Br. Co.)	21	—
12000	Cobre Copper Co.	40	20
—	Colombian Co. regis.	55	—
—	Ditto Serip	—	—
10000	Copapo Mining Co.	14	—
20000	General Mining Ass'n.	20	10
5381	Royal Spanish Am.	59	5
13000	Mocaelas Co.	25	1
29320	R. del Monte, regis.	28	1
—	Ditto unregistered	—	—
—	Ditto Red Ventures	—	19
—	Ditto Black ditto	—	17
—	Ditto Loan Notes	150	117
7000	Royal Spanish Am.	15	24
1000	St. John del Rey	15	—
43714	United Mexican	294	4

RAILWAY SHARE LIST, AND TRAFFIC RETURNS

Name of Railway.	Lenth. Rwy.	Present actual cost.	Pd. on		Val. of Share.	Last Div.	Returns.	
			shares	15s.			1846	1844
Arbroath and Forfar	15	£140,792	25	15	2½	—	—	£ 91
Birmingham and Gloucester . .	53	1,499,825	100	135	4	—	£170	1,675
Brandingford Junction	23	471,317	50	54	44	—	—	—
Bristol and Gloucester	37½	501,177	30	564 74	3½	—	—	—
Chester and Birkenhead	16	512,373	50	394 1½	—	398	330	—
Dublin and Drogheda	81½	900,569	60	79	—	569	—	—
Dublin and Kingstown	6	240,735	100	337 ½	6	610	560	—
Dundee and Arbroath	17	153,416	—	—	39½	5	234	171
Durham and Sunderland	19	267,769	50	32	4	645	686	—
E. Counties & North. & East . .	79	3,785,614	45	—	5	3453	2077	—
Edinburgh and Glasgow	46	1,649,114	50	63 5	4½	2045	1738	—
Glasgow, Paisley, and Ayr	40	1,050,962	50	66	44	1460	1181	—
Glasgow, Paisley, & Greenock . .	23	787,844	50	16 15	3	654	689	—
Grand Junction	98	2,299,134	100	227	10	7176	6289	—
Great North of England	46	1,262,518	100	188 92	3½	1344	1846	—
Great Western	118	7,973,539	80	175 7	7	13794	10417	—
Liverpool and Manchester	31	1,566,006	100	206	10	4232	3421	—
Liverpool and Birmingham	113	6,393,466	100	239 24	10	14470	12688	—
London and Brighton	4	1,215,660	16½	74 ½	—	767	885	—
London and Blackwall	51	2,330,500	100	127	38	2992	2996	—
London and Croydon	10	761,585	12½	194 19	3	812	116	—
London and Greenwich	4	1,038,326	12½	104 11	—	68	—	—
London and South-Western	77	2,596,291	41½	78 9	6½	4006	4295	—
Manchester and Birmingham	31	1,923,699	40	65 7 5	5	3244	2761	—
Manchester & Leeds Rail	83	3,486,785	70	138 40	10	6289	5384	—
Manchester, Bolton, & Bury . . .	10	777,959	30	11	4½	866	74	—
Midland	163	6,301,594	100	131 9	—	9014	7383	—
Newcastle and Carlisle	61	1,085,497	100	122 3	4	1567	1406	—
Newcastle and Darlington	29½	405,727	24	32 4	—	1029	—	—
Newcastle and North Shields . . .	7	309,629	50	70	6	372	273	—
Newcastle, Bolton & Preston . . .	23	1,015,447	100	139 5½	1287	1009	—	—
Preston and Wyre	23	435,014	50	262 1	—	537	221	—
Sheffield and Manchester	11	950,499	25	108 3	—	673	464	—
South-Eastern and Dover	88	3,464,172	37	414 2½	2½	444	289	—
Taif Vale	22	590,006	100	110	2	940	864	—
Ulster	25	347,345	29½	45½	6	—	802	—
Yarmouth and Norwich	20½	230,228	30	27½	—	181	—	—
York and North Midland	31	676,644	50	101 3	10	2214	1381	—
Paris and Orleans	—	2,000,000	30	47 ½	4	3690	3500	—
Paris and Rouen	—	1,995,306	30	43 ½	2½	3683	3328	—

The following are current prices of Railroad Shares, not including the following:

Name of Railway.		Price.	Name of Railway.		Price.
Aberdeen Railway	24	North Kent	21	North Kent	21
Belfast and Ballymena	34	Norwich and Brandon	16	Norwich and Brandon	16
Bristol and Exeter	62 4	North Wales Mineral	11	North Wales Mineral	11
Caedmonian	7	North Wales	2	North Wales	2
Charnage and Lincoln	22	Richmond and West End Junction	41	Richmond and West End Junction	41
Crummel Valley	24	South Wales	41	South Wales	41
Chester and Heyhead	74 8	Scottish Central	41	Scottish Central	41
Cornwall	34 4	Shelfield and Lincolnshire	41	Shelfield and Lincolnshire	41
Duffryn Llynvi and Porth Cawl	100	Shrewsbury and Grand Junction	41	Shrewsbury and Grand Junction	41
Direct Northern to York	2 14	Shrewsbury, Wolverhampton, &c.	41	Shrewsbury, Wolverhampton, &c.	41
Dublin and Belfast	64	Scarborough	53 4	Scarborough	53 4
Dublin and Cashel	124	Trent Valley	30	Trent Valley	30
Dublin and Drogheda	34	West Cornwall	41	West Cornwall	41
Ely and Bedford	14	West Yorkshire	41	West Yorkshire	41
Glasgow, Dumfries, and Carlisle	14	Yarmouth and Norwich	41	Yarmouth and Norwich	41
Gr. Southern & Western (Ireland)	12 14	Boulogne and Amiens	4	Boulogne and Amiens	4
Great Grimsby and Sheffield	34	Central of France	12	Central of France	12
Harwich and Eastern Counties June	14	Lyon and Avignon	41	Lyon and Avignon	41
Kendal and Windermere	44	Orleans, Tours, and Bordeaux	41	Orleans, Tours, and Bordeaux	41
Portsmouth Direct	34	Paris and Lyons	41	Paris and Lyons	41
London and York	44	Paris and Strasbourg	41	Paris and Strasbourg	41
Lynn and Ely	54	Rouen and Havre	41	Rouen and Havre	41
Lancaster and Carlisle	30 2	Sambre and Meuse	41	Sambre and Meuse	41
Newcastle and Berwick	124 14	Strasbourg and Biele	12	Strasbourg and Biele	12
North British	13				

THAMES TUNNEL COMPANY

The number of passengers who passed through the Tunnel in the week ending Feb. 11, 1906, was 24,121; amount of money, 100*l.* 10*s.* 1*d.* (last year, 84*l.* 7*s.* 5*d.*).

MISCELLANEOUS

Shares.	Company.	Paid.	Price.	Shares.	Company.	Paid.	Price.
0,000	Anglo-Mexican Mint	£10	.. 17	5,000	London Cemetery	.. 20	.. 18
0,000	Anti Dry-Hot	.. 18	.. 2	1,000	London Rev.Int.Soc.	20	.. 17
.. 500	Asphaltic (Caridge) 1	10,000	London Wood Paving	2	.. 18
0,000	Assam Tea Co.	30	.. 43	15,000	Met.Est. Wood Paving	2	.. 18
0,000	Austral. Agricultural	30	.. 25	20,000	Met.Est. & S.American	7	.. 18
5,709	Australian Trust Co.	35	.. 33	20,000	New Brunswick Land	70	.. 18
2,200	Bittumen Bastenne	.. 54	.. 51	6,092	Peninsular & Oriental	50	.. 34
0,000	Ditto Poloncau	.. 25	.. 1	10,000	Patent Elastic Part.	.. 1	.. 11
0,000	Brit. Amer. Land Co.	34	.. 12	5,387	Rever. Interest Society	100	.. 101
4,000	Brit. Loan & Dis. Inst.	24	.. 24	15,000	Royal Mail Steam Pkt.	60	.. 37
1,500	Brit. Rock Salt	35	.. 12	13,572	St. Katharine Dock	120	.. 117
0,000	Droitwich Patent Salt	.. 14	.. 14	2,000	St. Katherine's Iron Foundry	43	.. 18
2,700	Equitable Rev. Soc.	80	.. 85	14,000	South Australian Land	70	.. 18
0,000	General Steam Navig.	14	.. 25	7,000	Southampton Dock Co.	50	.. 30
0,000	Gen. Rev. Int. Soc.	100	.. 104	3,000	Ship Owners' Towing	73	.. 18
2,100	Hungerford Market	.. 100	.. 55	14,000	Thames Tunnel	.. 60	.. 54
8,000	London Corn Exch.	37	.. 25	10,000	Van Dieman's Land	20	.. 4

* 7000 shares of 50l., since converted into 350,000. stock.

London:—Printed and Published, weekly, by HENRY ENGLISH, at the Office,
No. 26, FLEET-STREET,
in the city of London, where all Communications and Advertisements are requested
to be forwarded—addressed to the Editor.

The Mining Journal.

No. 497.]

ENLARGED SHEET.

[MARCH 1.

Proceedings of Public Companies.

BRITISH IRON COMPANY.

On Thursday, a special general meeting of this company was held at the offices in New Broad-street, City. Sir GEORGE LARPERT, Bart., took the chair. The usual notice to the proprietors was read to the meeting, stating the object to be the appointment of a committee for settling the debts now due to the company. The CHAIRMAN read the following report of the directors.

REPORT.

The directors have thought it right to convene the proprietors on the present day for the purpose of appointing a committee, with power to compromise debts due to the company. The directors have the satisfaction of stating, that the measures adopted for obtaining payment of the arrears of calls, have been fully as effectual as could have been anticipated, since the passing of the company's Act of last session.

The arrears on calls made previously to the 4th of July last, the date of the passing of the Act, amounted to £118,894 of which arrears there have since been recovered the sum of £24,582

Reducing the arrears to £93,709
A call was made under the Act, payable on the 6th August last, of 5s. per share, the arrears on which amount to £25,185
Making the total arrears £118,894

Against this sum, however, are to be placed a sum of 55500, being deposits made by proprietors on account of their liabilities, to be returned, if not accepted in full by the compromise committee when appointed; and also a sum of 32000, being the balance due by proprietors who have submitted to judgments for the amount of their liabilities. The amount, therefore, on account of arrears, which has been either actually received or secured by judgments since the passing of the company's Act of Parliament is as follows:—
Arrears on calls made previously to 4th July last £24,582
Amounts received on deposit 5,550
Amount secured by judgments 3,200

Further arrears will, without doubt, be received, but it is impossible to estimate the amount at present with any precision. Since the passing of the Act all resistance at law has been overcome, and the directors are advised that they have no reason to anticipate any further question as to the company's right to recover calls.

It will be in the recollection of the proprietors, that, at the half-yearly meeting of the company, which took place on the 19th November last, it was stated that the outstanding liabilities of the company, on promissory notes, amounted, at that time, to 109,000. The receipts since that period have enabled the directors to reduce the amount to 103,000. It is obviously the interest of the shareholders to liquidate this balance, and to close the concern at the earliest possible period, and with the least possible expense. With this view, the directors intend making a call of 5s. per share, payable about the 15th April next, of which due notice will be given; and they have reason to hope, that such an amount will be received upon it as, with arrears to be recovered, will render the call, which will be necessary at a future period to make a final settlement of the company's affairs, one of comparatively light amount.

All opposition on legal grounds to the claims for calls being, as has been already mentioned, now at an end, the directors feel that the power conferred by the Act to accept compositions from insolvent defaulters, may be safely and satisfactorily put in force; and they, therefore, propose, as the business of the day, the appointment of a committee, to be selected by the proprietors, to determine the amounts to be accepted from parties who are unable to meet their debts in full.

The CHAIRMAN moved that the report be received and approved. Mr. HARRISON seconded it, and it was adopted accordingly. The CHAIRMAN then proposed that a committee be appointed for the purpose above-named. A PROPRIETOR hoped no one would be let off who was enabled to settle his engagements.

The CHAIRMAN said that would not be the case. They had the best security in having gentlemen in the direction and on the committee, who were the largest proprietors. They would not let off any person who could and ought to pay his engagements. Independently of their duty, there was the best possible safeguard for their conduct in their own great personal interest. He, therefore, hoped the proprietors would give their concurrence to this committee, who were to perform the last act in that unfortunate drama, in which they had all, more or less suffered. Mr. Mc LAURIN could not see how that committee could perform their duties satisfactorily to the proprietors, unless they appointed one of the committee to make a special report of every one's case, who stood indebted to the company. Mr. WILSON said it would be the duty of the committee to enquire into every one's case (hear, hear). Mr. Mc LAURIN: It is not likely the committee will do that. The CHAIRMAN said they so could follow the mode prescribed by the Act of Parliament. The question was entirely one of confidence in the committee. In addition, they had proposed to add the committee appointed, at a general meeting, in Sept. 1843, for winding up the affairs of the company. A PROPRIETOR asked how many gentlemen composed the committee to be appointed?

The CHAIRMAN said eighteen. Mr. Mc LAURIN persisted in saying that a special report of each case ought to be made, which the committee could not do collectively. The CHAIRMAN said the committee had been known to them for many years (hear, hear). The question was whether they would give them their confidence or not, which could only be decided by the majority of the gentlemen then present. Mr. Mc Laurin could vote for any mode he thought right and proper.

Mr. BROWNIE, M.P., could not see what more security could be wished for, than the large stake held by the committee. There would be the names, when the affairs were wound up, of every individual with whom any compromise had been made, and the amount of that compromise.—Mr. Mc LAURIN: That will come too late.—Dr. BOWRING, M.P., objected to any delay in granting full powers to the committee. He could see no reason for doubting that they would do their duty fairly to the proprietors.—Mr. WILSON had no doubt that a strict enquiry would be made into every particular case, for the committee would only be doing their duty to themselves as well as the proprietors.—The CHAIRMAN asked, who were more likely to do their duty, than those who were so largely interested? If they allowed the committee to be appointed, they must leave the mode of action to that committee.—A PROPRIETOR thought that the committee would make a special enquiry into each case separately.—The CHAIRMAN said, they could not pledge themselves to any particular mode.—Dr. BOWRING hoped Mr. Mc LAURIN did not mean to say, that such a committee would not do their duty.—The CHAIRMAN said, the committee would not consent to take any particular course, as the dictum of any individual. The mode must be left to their discretion.

Mr. HICHENS had no doubt the committee would take care of their own pockets, as well as those of the proprietors. All he hoped was, that those gentlemen, would manage the business as delicately as possible, and act with as great leniency as they could towards those unfortunate persons who were unable to pay in full; and for the additional 5s. per share, to give all the accommodation they could, consistently with their duty to the whole company, as to time or security.—A PROPRIETOR thought a larger proportion than three ought to be the quorum.—Mr. S. RICARDO said, the gentlemen of the committee had found it a very disagreeable task, and could be happy, if they could do it consistently, to retire altogether.

The CHAIRMAN said, their best plan was to go as near their act of Parliament as possible, and it defined that the committee should consist of five members at least. He quite agreed with Mr. Hichens, that every delicacy and feeling should be exercised; he had always entertained that opinion, and he thought in that respect, the past was the best warrant for the future.

A PROPRIETOR asked what interest they had paid on the 100,000. The CHAIRMAN said 4 per cent., and that the rates were for various periods. A PROPRIETOR wished to know what amounts were owing at the present moment?—The CHAIRMAN said 103,000, besides all contingent expenses. Mr. Mc LAURIN not having moved any amendment, the CHAIRMAN submitted the following resolution: "That in pursuance of the company's Act, 7 and 8 Vict., sess. 1844, sect. 4, Sir George Larpert, Bart., J. H. Palmer, Esq., W. Crawford, Esq., M. Harrison, Esq., J. H. Ravenshaw, Esq., G. P. Barclay, Esq., J. S. Brownrigg, Esq., M.P., D. B. Chapman, Esq., Samuel Hoare, Esq., Charles Kerr, Esq., Samson Ricardo, Esq., J. Abel Smith, Esq., M.P., W. A. Wilkinson, Esq., J. S. Smith, Esq., Benjamin Harding, Esq., Capt. George Probyn, W. Parker, Esq., and Thomas Drane, Esq., proprietors of the company, be appointed a committee for the purpose of settling, compromising, compounding, and releasing, at their discretion, all debts due to the company, for calls or otherwise, and all claims and demands of the company, on any person or persons, and such committee are hereby invested with all and every the powers and authorities, by the said Act given and authorised to be given, to any committee in pursuance thereof."—The resolution was passed unanimously.

Dr. BOWRING, M.P., said, that no chairman ever merited the confidence and heartfelt thanks of a company than Sir G. Larpert, for his conduct on that and on all other occasions, he would, therefore, move a vote of thanks

to their worthy chairman. (Hear, hear).—Mr. HICHENS seconded the motion, which was passed unanimously.—The CHAIRMAN returned thanks, when the meeting adjourned.

UNITED MEXICAN MINING ASSOCIATION.

This company held a special meeting on Thursday last, to consider the expediency of giving Mr. Shoobred powers to adopt such decisive measures, as should raise the prospects of the association, and ultimately lead to more favourable results than had hitherto followed their undertaking.

Sir JOHN EASTHOPE, Bart., M.P., in the chair.

The CHAIRMAN having called on the secretary to read the minutes of the last meeting observed that, before proceeding further, he would read the following letter from the Foreign Secretary:—

Foreign Office, Feb. 6, 1845.

Sir,—The Earl of Aberdeen having had under his consideration the statement contained in your letter of the 21st of August last, together with the information subsequently furnished by Mr. Shoobred, respecting the complaint of the United Mexican Mining Association against the tribunals of the Mexican Republic, I am directed to acquaint you, that it appears to his Lordship that the association have now given sufficient evidence of the justice of their complaint, to warrant the interference of her Majesty's Government in their behalf, and that her Majesty's Minister at Mexico will accordingly be instructed to demand compensation from the Government of Mexico for the injury which the Mexican Mining Association has suffered by the acts of the Mexican tribunals.

I am, Sir, your most obedient servant,

Sir J. Easthope, Bart., M.P.

H. M. ADDINGTON.

The general purpose for which the directors had called the proprietors together, was to ascertain their opinion respecting certain steps submitted to the directors for giving permanence and solidity to the affairs of the association, the measures in themselves were of vast importance, and on their advisability the directors would unhesitatingly pronounce their own conviction, but before the shareholders committed themselves to the extent which the propositions would involve them, they might naturally inquire what were the funds and the present prospects of the company. The number of shares, created at various times by the different loans and debentures, were 28,272 shares, created at 40s. per share, making 1,130,880s.; 664 at 15s., making 9960s.; 303 at 14s., making 4242s.; 4978 in scrip. at 12s., making 59736s.; and 8957 at 5s., making a total of 43,174 shares, for which an average price of 28s. 2s. 8d., and a gross amount of 1,214,774s. had been paid by the company. The property of the association in the states of Mexico, agreeably to the last advice as valued by the company's agents, was as follows:—

Buildings	£ 93,457	1	7
Stores	142,725	6	1
	526,183	7	8
Cash advanced on hacienda contracts	513,000	0	0
Improvements in the hacienda of Duran	12,000	0	0
The claims for Treasury orders against Arista indemnity	17,679	0	6
Claims on the Mexican Government, arising out of the San Acacilo lawsuit, exclusive of interest	230,554	6	4
The Hayes debt	757,670	1	2
Available assets at Guanajuato	74,432	7	7
	\$1,458,520	0	5
Assets at home	£255,241	0	0
Or	3,061	10	2
Quicksilver Mexico, and on the road thence	13,702	0	1
Total	£273,004	10	2

The directors had, after giving these various items, intimately connected as they were with the prospects and future success of the association, their most anxious surveillance and examination, been the better prepared for the consideration of the vast and important recommendations of Mr. Shoobred, on which were based the revival of the company and the subjects of discussion for the present meeting, the magnitude of which would at once be manifest. In their deliberation upon it, the directors had applied their minds with the greatest possible care; remembering the unfortunate mistakes which the association first in its early formation committed, and keeping in recollection the risks to which this company in particular was liable, and the risks which all mining concerns collectively were subject. But whilst bearing in mind these deterring circumstances, they had eventually come to the conviction that it would be unwise to disregard those advantages which experience had so dearly and painfully given them. They had therefore determined in recommending the proprietors to adopt the views of Mr. Shoobred, and empower him to carry out his suggestions. The directors felt that if the case had been their own they should not hesitate, but as it materially concerned the interests of every individual shareholder, they resolved to consult that body before they gave their final sanction to the proposition. The instructions they proposed to give Mr. Shoobred were, that he should be at liberty to apply the entire fund arising from the Zacatecas compensation and treasury orders on hand, and meanwhile take in anticipation the sum of 5000l. out of the present assets of the company in Mexico, for the accomplishment of any extended operations he may deem advisable, believing as they did that that course, would ensure them a good, bona fide, mercantile chance of giving character and permanence to the existence of the company. (Cheers).

After a slight discussion, in which Mr. Moore strenuously opposed all further investment of funds in the speculation, a resolution, embodying the substance of the directors recommendation, and giving Mr. Shoobred full powers and instructions, to further and complete his propositions, was passed, only two proprietors dissenting.—A vote of thanks was given the board of direction, and the meeting separated.

Mr. Shoobred leaves for Mexico on Saturday next, and will remain there till the new board of management has been thoroughly organised, and on his return, his valuable services will be secured by his election to a seat in the directory.

BEDFORD UNITED MINING COMPANY.

The annual general meeting of this company was held at the offices, 51, Old Broad-street, on Thursday, the 27th ult.

J. J. VANHILLER, Esq., in the chair.

The advertisement convening the meeting having been read, the following report of the directors was laid before the proprietors:—

REPORT.

The directors of the Bedford United Mining Company, at the present annual general meeting, present to their co-proprietors a statement of the accounts of the past year, made up to 31st December last, which has been examined and signed by the auditors. From this account it will be seen, that while the raisings for the year 1842 were 175 tons 16 cwt. 3 qrs. amounting to 786l. 16s. 3d., and for 1843 were 189 tons 17 cwt. 3 qrs., amounting to 944l. 1s. 10d.—covering one-third of the year's cost—those for the year 1844 have been 538 tons 2 qrs., amounting to 6204l. 7s. 11d.; and at the same time, the directors would observe, that, while the loss on the two first months of the past year was 196l. 4s. 9d., and on the first six months 130l. 4s. 10d., the profit on the last two months of the year was 624l. 7s.—thus showing a steady increase of improvement in the company's operations. The accounts now presented show a balance in favour of the company to the 31st December of 1155l. 9s. 2d. The directors have the satisfaction to state, that the mine is free from all liabilities, and the whole of the monthly expenditure being charged in the monthly cost, the profit now making will be available for division, as soon as it shall be considered desirable to commence paying dividends. On the subject of the state and prospects of the mine, the directors would refer, in addition to the weekly reports, at all times open to the shareholders, to that of the manager (Mr. J. H. HITCHINS), and while they consider the present state of the mine, as compared with the corresponding period of last year, every way satisfactory, they look forward to reaching several points of considerable promise, the operations towards which are now steadily progressing, as a period holding out prospect of increased returns and profit. The directors retiring in accordance with the regulations of the company are Mr. G. W. Harrison and Mr. W. A. Thomas, and the auditor Mr. R. H. Pike—all of whom offer themselves for re-election. In conclusion, the directors would congratulate their co-proprietors on the improvement of the mine during the past year, and the prospect of success that the adventure holds out to those embarked in it.

The statement of the accounts for the past year was read, as well as the reports of the state and prospects of the mine.

In reply to an inquiry from a shareholder, Mr. G. W. HARRISON stated, that the engine-shaft on the Marquis lode was sunk to the seventy fathom level, and the cross-cut driven within a few fathoms—probably, two or three—of cutting the lode, and that having had one ground in all the levels, from the twenty-five to the fifty-eight fathom levels, they might reasonably expect it at the seventy; the ore ground already laid open, irrespective of what may be discovered by cutting this seventy fathom level, is about 12,0000l., as will be seen by the report of Mr. HITCHINS. A few months would connect the forty-seven and the deep adit, leaving a dry mine above.—In answer to a proprietor, Mr. HARRISON stated, that at Wheel Tavistock the shaft was down about twenty fathoms—that the lode for the whole course had been every way similar to the Marquis lode, at

a similar depth of a most favourable description—and that ore was first met with thereon at twenty-two fathoms deep, and that shortly a discovery there might be looked for.—A PROPRIETOR: Are those the only shafts sinking?—Mr. HARRISON: The engine-shaft, at Ding Dong, is down about five fathoms under the twelve fathom level, or about fifty-nine from surface; some good work had been met with at the twelve fathom level, apparently the top of a bunch, which it would be desirable to see at the next level; the shaft was being sunk with all dispatch. Some preliminary work was also doing on Delves Kitchen lode. Improvement might reasonably be expected at all these points of operation.—Resolutions were passed for the reception of the report and accounts, and for the re-election of the directors and auditors retiring; and a vote of thanks having been passed to the directors and the chairman, the meeting separated.

CORNWALL AND DEVON CENTRAL RAILWAY.

A special meeting of this company was held on Tuesday, the 25th ult., at their offices in Old Broad-street, EDMUND TURNER, Esq., M.P., in the chair.

After a short preliminary discussion as to the admission of the public press, the SECRETARY (Mr. HARVEY) read the report, which announced that the standing orders relative to the deposit of plans were only complied with on the day on which the adverse report of the board of trade appeared; and it was deemed by the committee a matter of importance to investigate the plans and sections deposited by the Cornwall Railway Company, from Plymouth to Falmouth, to obtain the most accurate information as to the nature of the works intended to be executed on that line. During the course of the investigation, a suggestion was simultaneously offered by some members of both committees to effect an arrangement, which, being mutually beneficial, might prevent the necessity of parliamentary opposition: the negotiations had, however, been broken off, and there was no prospect of their being renewed. The report then entered very fully into the presumed vast superiority of their line over the Coast one; and appeared very satisfactorily to establish its alleged merit. It represented that the grossest misrepresentations had been made by the Coast line before the Board of Trade: as to their gradients the statements had been, in many instances, notoriously incorrect—a gradient of 1 in 42 for a mile and a half being marked on the sections 1 in 60; and gradients of 1 in 90 being marked 1 in 180. The superiority of the Central Line was confirmed by the engineers' report, which showed that their project for connecting Falmouth, Bodmin, and Plymouth, would be four miles and a quarter shorter than by the proposed route of the Southern Line, and very much preferable in respect to gradients and curves: the Central Line rising and falling 1172 feet, and the Southern Line, 2298 feet. It further represented that in the Central Line there were 26 curves not exceeding one mile radius, and their total length would be nine miles and three furlongs. Two of the curves were of a quarter mile radius, one of 2½ furlongs, one of 3 furlongs, eight of half a mile, two of three quarters of a mile, and the remaining twelve of one mile radius. In the Southern Line were 162 curves, the total length of which were 294 miles, leaving only 7½ miles of short pieces of straight, or nearly straight, between the numerous curves. Forty-seven of the curves were of a radius so small as 15 chains, and some of them so small as 12 chains. Ten were more than 15, but did not exceed 18 chains radius; 14 were more than 18, but did not exceed 20 chains radius; 21 were more than 20, but did not exceed 25 chains radius; 28 were more than 25, but did not exceed 30; 26 were more than 30, but did not exceed half a mile radius, the remaining 16 being more than half a mile radius. The Central Line did not pass any turnpike road, nor any great public road on the same level, nor would it cause any road to be made of worse inclination than they now were. The Southern Line crossed about 15 public roads on the same level, some of them being turnpike roads and great thoroughfares, and would cause about 30 public roads, including turnpike roads, to be made of worse inclinations than they now were. The Central Line would not interrupt any navigation. The Southern Line would cross two navigable creeks, and interrupt the maritime trade of Truro and Penryn. The Southern Line would cut through many places in a very objectionable way, and was intended to pass close by sundry gunpowder magazines; while the Central Line would be comparatively free from such objections. The report further stated that, in the event of the shareholders deciding to proceed to Parliament with their bill, which course the directors strongly recommended—to accomplish that object the capital to be deposited would amount to 18,7500l., being three-fourths of 25,0000l., the amount of deposit on 500,0000l., the estimated capital for that portion of the line, and it would be necessary to obtain fresh subscriptions to the extent of 30000l. to make up the requisite deposits, and for the present shareholders to pay up the call of 7s. per share to discharge the outstanding liabilities which amounted to upwards of 90000l., and the assets, including deposits on the South Western shares and Messrs. Turner & Co.'s, to about 27,0000l. The finance committee have examined the accounts, and have recommended that a sum of 7s. per share be deducted from the paid-up capital, which, with a sum to be contributed by the committee, would liquidate the debts of the company. The South-Western directors, having withdrawn from this company, there would remain shareholders representing about 12,500 shares, or a sum of 15,6250l. as deposits. If a majority of the shareholders, however, desired that no further steps should be taken, the committee would take immediate measures to return the balance of the deposits.

On the report being read, and a resolution put for its adoption, Mr. HASLEWOOD asked whether the shareholders, who had not paid up their deposits, were responsible for the amount?—The CHAIRMAN, in reply, observed that the origin of the bold position which the company had taken, arose out of the South-Western Company agreeing, on certain conditions, to take 10,000 shares. A party of gentlemen with whom he (the chairman) was connected, agreed to take 5000 shares on the terms understood by the South-Western Company. And those terms were as follows:—They had had a right to suppose that 25,000 shares would be taken by the county of Cornwall and elsewhere; those 25,000 shares not having been taken, the South-Western Company had a right to retire. With regard to himself and his friends, with whom he had been acting in this matter, he felt it necessary to say that they and he, although they did not feel themselves bound, except on the principle of honour, were prepared to pay their proportion of the sum, which they had been told amounted to something like 90000l.—After a somewhat warm discussion, in which the conduct of defaulters was freely dealt with, Mr. HOLLAND moved—"That it is the opinion of this meeting, that every subscriber to this undertaking may withdraw his deposit at the present time by forfeiting 7s. per share, as his proportion of all the expenses incurred up to this day."—Mr. WILSON seconded the motion, which was carried with one dissentient.—The report, which had hitherto been apparently forgotten, was then put, and unanimously adopted: after which, the CHAIRMAN, in a speech of great length, suggested that the shareholders should apply for 1750 shares in the Cornwall line, which he thought might be obtained if the Cornwall and Devon Central Company abandoned their opposition to that (the Cornwall) line.—Mr. TILLY considered the suggestion an ingenious device on the part of the promoters of the South line to get off 1750 shares. That line was considered by all disinterested and scientific men as impracticable. The parties in Cornwall represented by him, had decided upon having nothing whatever to do with the South line, unless the latter took about thirty miles of the Cornwall and Devon Central line, and thereby made the former practicable.—The CHAIRMAN denied that the suggestion which he had thrown out came from the other company, or any person connected with it.—It was here noticed that, in order to go to the Cornwall Company for the 1750 shares, it would be necessary that a petition which had been presented to the House of Commons against the bill by the secretary, should not be appeared to.—Mr. HARVEY said he had not presented that petition as the secretary of this company, but simply as a landholder in the county of Cornwall.—A very stormy discussion here ensued, relative to the chairman having taken 150 shares in the Coast line, which, after some hesitation, he admitted, and acknowledged his having given 4500l. as deposit on them. This announcement appeared to cause great excitement; and, after a very angry debate, it was proposed that "the chairman and two of the proprietors should be empowered to act on behalf of the company, and finally negotiate with the committee of the Cornwall Railway, with a view to a friendly arrangement; and, in the event of their accomplishing the same, they be authorised to withdraw the present opposition to their (the Cornwall) line; and that the secretary do not appear to support the petition lodged by him against the Cornwall line of railway, and that notice in writing be given by the deputation to Messrs. Dorrington and Co., the Parliamentary agents, of such determination."—This resolution was eventually carried, after an indignant protest by Mr. HARVEY (the secretary) and Mr. TILLY (the solicitor of the company), both of whom immediately tendered their resignation, and expressed their determination, the one to appear to the petition, and the other to oppose the Southern line.—Mr. HARVEY, at the instance of Mr. TILLY, agreed to withdraw his determination; at the same time, he very truly and judiciously observed that the resolutions just passed were in direct contradiction to the report which had been adopted, and the meeting had, therefore, completely stultified itself. The deputation having retired to adopt the necessary steps for endeavouring to secure the 1750 shares, the shareholders separated, but not before a very decided opinion was expressed that a negotiation for the granting the above number of shares had been concluded long before, and that they were to be allotted to the Cornwall and Devon Central Railway.

The subjoined letter will show the successful result of the negotiation of the deputation appointed at the above meeting to wait upon the committee of the Cornwall Southern Line:—

(COPY.)

House of Commons, Feb. 26, 1845.
TO MR. HARVEY, SECRETARY OF THE CORNWALL AND DEVON CENTRAL LINE OF RAILWAY.
SIR,—I beg to inform you, that the power given at the public meeting of yesterday, to

my colleagues and myself, has been duly and satisfactorily exercised by an arrangement with the Cornwall Railway Company, to the effect, that 1750 shares in the Cornwall line be appropriated to the Devon and Cornwall Company.

It will be your duty to communicate this to the shareholders in the latter company. Your obedient servant,
(Signed) EDMUND TRAYNER.
Thomas Harvey, Esq., Secretary of the Devon and Cornwall Railway.

BRISTOL AND EXETER RAILWAY.

At the half-yearly general meeting of this company, held at the White Lion Hotel, Bristol, on Thursday, the 27th ult., FREDERICK RICKETTS, Esq., in the chair, after the usual preliminary business had been transacted, the SECRETARY (J. B. Badham, Esq.), read the report, which showed a very satisfactory increase of the traffic during the last half-year; the rent and share of toll due by the company to the Great Western Railway for the half-year ended Dec. 15, is—

Fixed rent of line from the 14th June to the 13th Dec., at 71,967d.	£35,978 10 0
per annum on 315,899 passengers, conveyed 7,373,066 miles, at 4d per mile	£7619 4 8
Goods and coal, 32,992 tons 9 cwt. 3 qrs. 13 lbs., conveyed 1,375,596 miles, at 4d. per mile	1433 5 4—9,112 10 0

Total.....£45,091 0 0

The gross earnings during the same period, as calculated by the Great Western Company, 90,595l. 19s. 6d., show an increase of 31,435l. 18s. 7d., derived from the Bristol and Exeter line, a larger amount than the additional number of miles opened would have justified in expecting. The claims made by the company for additional rent remain undecided. It is expected that, in the course of the ensuing summer, a considerable portion of the South Devon Railway will be opened for traffic, which cannot fail to produce a large increase of receipts; and this result will be greatly promoted by the liberal and judicious arrangements announced by the Great Western Company, in improving their second class carriages, reducing their fares, and modifying their charges upon merchandise. The directors recommended a continuance of the dividend of 12s. 6s. per share, free of income-tax. All needful measures had been adopted for obtaining, in the present session of Parliament, an Act for constructing the several branches sanctioned at the special general meeting of the 16th January. Another special meeting is to be convened for submitting a draft of the bill for confirmation. Of the 15,000 third shares deposited had been paid to the bankers on nearly 14,900, and of the remainder a large proportion are at the disposal of shareholders residing abroad, who require an extension of the period for sending in their claims, and who are not likely to forego the advantage; so that the number unclaimed will be too small to allow of any further allotment, and the directors propose, therefore, to sell them for the benefit of the company. The accounts showed the balance at the bankers and in securities, at the end of Dec., as 77,701l. 4s. 7d., exclusive of 2500l. deposited with the treasurer for the county of Somerset, invested in the public funds, and of the 40,000l. paid for calls on 4000 shares in the South Devon Railway, which bear interest at 4 per cent. per annum; in addition to which, the deposit of 32 per share on 1850 shares in the Cornwall, Plymouth, and Falmouth Railway has since been paid, agreeably to a resolution passed on the 16th January; the sums required to provide for these calls, as well as those for paying off the debentures which fell due in June and Dec. last, have been borrowed at 4 per cent. A contract has been made for erecting a station in Temple Meads, under an engagement for its completion within three months; the directors regret that the accomplishment of this object should have been so long delayed; but this, with some auxiliary works rendered necessary by the rapid increase in coal and other traffic, unavoidably prevents the closing of the construction account. The vacancy in the direction, caused by the death of Mr. M. H. Castle, in accordance with the intention heretofore expressed, will not be filled up; the four members of the board who retired by rotation—Mr. E. Divett, M.P., Mr. S. Lucas, Dr. Miller, and Mr. C. B. Frigg—are candidates for re-election. The directors refer with great pleasure to the friendly arrangements made between the Great Western and the South Western Railway Companies, as announced in their reports, whereby all probability of future competition detrimental to the interests of this company is removed; and, should it hereafter be found necessary, in order to meet the requirements of the public, to construct any additional line in that district, it is understood that it shall be undertaken by this company in conjunction with the Great Western.

The CHAIRMAN, after congratulating the proprietors on the increasing prosperity of their line, and the fair prospects it held out for the future, proposed the adoption of the report, which, being seconded by Mr. GRUBS, was carried unanimously.—On the motion of a dividend, of 12s. 6s. per share being paid, the proprietors, a shareholder, having enquired if the amount of money received from the Great Western Railway Company, would cover the current expenses during the last half year?

Mr. FURR said, it might be reasonable to suppose that the whole of the expenses of the establishment ought to be charged on the revenue account; but, for the last half year, the directors had to deal with the fund for the construction of the line; and as this was the first meeting since the entire road was opened, and as the accounts were not yet closed, it was out of the power of the board to analyse the capital and the revenue accounts, so as to give a distinct statement of how each stood. As to the proportion which the dividend now proposed, bore to the amount received from the Great Western Railway Company, he could assure the proprietors that, being enabled to recommend such a dividend, was, to the directors, a matter of the highest satisfaction; and he trusted that it was also gratifying to all the other parties concerned. The Great Western Company had assigned to this company 90,595l., to which sum might be added a further one of 400l., for which they were responsible, it having been laid through the carelessness of some person in their employment, in the transmission of it from the station to the bank; so that this company might fairly take their earnings during the last half year at 91,000l. Looking, then, at the expenses of the establishment, as far as they could be ascertained, and having the examples of other railways to guide them, he was convinced that his brother proprietors would see that the directors were perfectly justified in recommending the payment of the proposed dividend. There was, he might observe, a question between the Great Western and this company which was unsettled; and when it was arranged, the effect would be to add 1500l. to their income for the last half year, so that on the whole the amount of their receipts would fully come up to their expectations. Those of the proprietors who were accustomed to look into the statements of the receipts of the various lines throughout the kingdom, would see by the present returns from this, their own railway, that ample remuneration for the investment of their capital might be confidently relied on. The receipts of the Great Western line averaged 2815l. per mile, and the receipts of the Bristol and Exeter line averaged 1200l. per mile; but when they came to compare those receipts with the amount of capital embarked in the two establishments, it would be found that there was not such a great difference in the per centage paid by each as might be supposed. The Great Western had laid out 6,422,484l. in the construction of their line; that was 51,571l. per mile, and the gross return for the half year was 54 per cent. The Bristol and Exeter line, looking at its cost in proportion with that of the Great Western, expended only 600l. more than one half of the cost of the latter line, and it was now yielding 44 per cent. Under all the circumstances, the directors had the utmost confidence in recommending the payment of 12s. 6s. per share to the proprietors.

The resolution was then adopted. The outgoing directors were then re-elected, a vote of thanks given to the chairman, and the meeting separated.

NORTH WALES MINERAL RAILWAY.

The half-yearly meeting of this company was held on Friday, 28th ult., at the office in Moorgate-street, City. W. E. COLLETT, M.P., having taken the chair, the SECRETARY (Mr. G. King) read the notice convening the meeting, and the minutes of the last general and special general meetings, which were confirmed. The seal was affixed to the registry.—The SECRETARY read the report, which stated that since the ordinary meeting of proprietors on the 30th August last, a special meeting had been held to consider a recommendation of the directors to extend the line to Ruabon, when they were requested to take the necessary steps for obtaining the requisite powers in the present session, and shares were accordingly allotted for this purpose, to the then registered proprietors of this company, with the understanding that, upon Parliamentary sanction being obtained, the two stocks should be amalgamated. At a more recent period, a further extension had been set on foot by an independent company, viz: from the terminus of the said extension at Ruabon, by way of Oswestry to Shrewsbury, connecting at the latter town with the proposed line to Birmingham, and thus rendering the railway a portion of one great line of communication between the North and South of England, and Wales. In addition, therefore, to the large mineral and local passenger traffic, which of themselves promise a liberal return on the capital, there may now be expected a vast accession thereto from the sources already stated. To form a proper provision for this contemplated accession, had employed the consideration of the directors, and although they are not at present prepared to advise that the works should be at once executed for a double line of way, considering that matters are not sufficiently ripe for that purpose, they are, however, disposed to recommend that the necessary capital should be provided for in the present bill; so that, should a double line be hereafter found expedient, the company will be in a condition to carry it out without again having recourse to Parliament. The capital for the foregoing purpose, and for the branches from the main line, will require an addition to the present capital of about 90,000l., which the directors propose to provide for in the bill, by the creation of 9,000 additional shares of 10l., which will admit of one share to each holder of a 20l. share, and one share for every two 10l. extension shares. With respect to the line between Chester and Wrexham, the directors have to report that some difficulties have arisen in treating for a portion of the land; but they are gratified to state that they are now nearly surmounted. A contract has been entered into with Messrs. Betts, who have engaged, at a fixed sum (72,929l.) to complete the whole of the works of the roadway and stations (the providing the permanent rails only excepted) and to deliver up the line to the company in working order, and to

maintain the same for six months after completion. The difficulty of obtaining the land already referred to, has caused some delay in their operations; but the directors are still in hopes that the line will be opened for traffic in the ensuing autumn. The rails for the permanent way have been contracted for at a trifling excess above the engineer's estimate, and considerably below the present price. The directors have great pleasure in referring to the half-yearly report of the Chester and Holyhead Railway Company stating their intention to proceed as rapidly as possible with the portion of their line which connects that of this company with Chester. In anticipation of the opening of the line in autumn, the directors have contracted for four locomotive engines and tenders, to be on the line in working order by that time; and the directors are now turning their attention to the providing a necessary supply of carriages and waggons. A statement of the receipts and disbursements to the 22d of the present month accompanies the report. The payment of the remaining land purchases, and the active state of the several contracts, will absorb the balance during the ensuing month, and render another call of 2l. per share necessary in April next.

The CHAIRMAN, after moving the adoption of the report, congratulated the meeting on the manner in which the contracts had been let, and the prospect of a speedy completion of the line between Chester and Wrexham. They had made a contract for iron much below the present charge, and he was happy to say, the contractor was a gentleman of known respectability. Some little difference of opinion had existed on the subject of the extension, noticed at the last special general meeting, in consequence of the further extension of the Oswestry and Shrewsbury line. He begged it to be understood, that he considered the Oswestry and Shrewsbury line, quite independent of the North Wales Mineral Railway, except as far as it would bring a portion of additional traffic to the line. It had been rumoured, that this company was to be taken up by the North Wales Mineral Company, which was not the case; he did not say this with any feeling of hostility; but meant it to be understood, that they were clearly independent of that company. They had been permitted to go as far as Ruabon, and to raise the capital required; further than this point the board did not intend to carry on the line. The further extension, he was happy to say, was contemplated by the Oswestry and Shrewsbury Company, and would be a source of great advantage to the North Wales Mineral Railway. His opinion was, it would not pay for them to go beyond Ruabon, except by making branches to the several collieries and iron works. He hoped the proprietors would look upon a great company, like the Chester and Holyhead, as their natural friends, as well as the Chester and Birkenhead Company, with the whole of which no other company had any just right to interfere. In conclusion, he begged to move the adoption of the report.—ADAM DUFF, Esq., seconded the motion, which was passed unanimously.

A PROPRIETOR asked a question, as to the expense of the branches? Mr. ROY said, there were only two branches; several coal proprietors along the line were anxious for small branches to their different works. A committee had been appointed to consult with them, but no agreement had yet been come to on the subject. The 90,000l. now voted was mainly for forming a double line of railway, which would cost 4,000l. a mile, or 72,000l., being for eighteen miles. The amount, between 90,000l. and 72,000l., would be held in reserve for the smaller branches, which might be contemplated.

Mr. PRIEST moved a vote of thanks to the chairman, which was duly seconded, and passed unanimously, when the meeting adjourned.

CHESTER AND HOLYHEAD RAILWAY.

The half-yearly general meeting of this company was held at the office, in Moorgate-street, on Wednesday, the 26th ult., at which the chair was taken by W. R. COLLETT, Esq., M.P.—The SECRETARY (Mr. G. King) read the notice, and the minutes of the former meeting, which were confirmed, and the seal affixed to the registry of proprietors.

The CHAIRMAN made a speech of considerable length, distinct from the report, in which he denied that they had asked the Government for 90,000l., 40,000l., with a sliding scale, was their demand. The Government gave them 30,000l. for five years, and another 30,000l. for seven years, with a contingency of carrying the mails a distance of eighty-five miles. It was said that the bridge over the Menai Straits would cost 500,000l., and take five years; he was happy to say three years and a half, and 250,000l. was the estimate. Two contracts had been let considerably under the estimate, and he thought they might judge from this that the total estimate would not be exceeded. To the present time, including the survey to Mold, they had only expended 23,199l. 15s. 2d., and had a balance in hand of nearly 200,000l. It was said that after they had purchased the Chester and Birkenhead Railway, the directors would not complete their agreement. As he saw some of these gentlemen in the room, he trusted they would contradict such a report. He had taken great interest in the railways in the south of Ireland, with a view to bring all the traffic to Dublin, and so over to Holyhead. In conclusion, he congratulated the shareholders on the prospect of Government making Holyhead a harbour of refuge, and of their granting, in the present year, a sum of money for its improvement as a packet station.—Mr. JACKSON (the chairman of the Chester and Birkenhead Railway), said the directors were most unanimous in their wish to carry into effect the agreement made with this company.

The SECRETARY then read the report of the directors, the substance was the following:—Captain Moorsom had undertaken the duties of resident director. The amended line approaching the Menai Straits would give no annoyance to the Bishop of Bangor, and a bill to make it was now before Parliament, which was expected to pass without opposition. The plan of the bridge was expected to meet with the approbation of the Lords of the Admiralty. The first eight miles out of Chester, and also the tunnel near Conway, had been contracted for; a further length of twenty-two miles, in continuation from Chester, would be contracted for next week; the remainder of the line towards Bangor in the month of April; and the Anglesea portion immediately afterwards. By the next half-year's meeting the directors hoped to report that the works of the railway, from one end to the other, would be in active operation. The amount of the eight miles contract was 118,995l. 18s. 6d.; the second (the tunnel with embankments), 59,611l. A contract had been entered into for 10,000 tons of permanent rails. A call of 5l. was to be made on the 21st April. Huts for the labourers on the line were to be erected, and a sum of 300l. was recommended as a stipend for a clergyman to attend at the works. The Chester and Birkenhead Railway would extend to the Birkenhead Docks. The proposed line to the mineral district of Mold (nine and seven-eighths miles in length) was estimated to cost 120,000l.; the capital to be raised after the Act is obtained. The directors were disposed to look upon the North Wales Mineral Railway as an advantageous branch to this railway. In conclusion, the directors quoted a paragraph from Sir Robert Peel's speech, in which, amongst other things, he said the Government thought it of great importance to improve the harbour of Holyhead, for the purpose of facilitating the intercourse between the two parts of the United Kingdom.—The CHAIRMAN moved the adoption of the report, which was seconded by Mr. THOMAS, and passed *nem. con.* Also a resolution for allowing 300l. for the present year for the attendance of a clergyman at the works.—Capt. MOORSOM seconded it.—In answer to a proprietor, the CHAIRMAN said the 10,000 tons were taken at less than 9l. a ton, to be delivered on the spot.—On the motion of Mr. MINTOSH, seconded by Sir H. RICHARDSON, a vote of thanks was unanimously passed to the directors.—Mr. J. L. Prevost and Mr. W. Borradaile were re-elected auditors.—Thanks were voted to the chairman, and also to the auditors, after which the meeting adjourned.

DURHAM AND SUNDERLAND RAILWAY COMPANY.

A public meeting of the inhabitants of Durham was held in that city on Tuesday last, to consider the expediency of petitioning Parliament, and adopting the most effective means to support the Sunderland, Durham, and Auckland Union Railway Bill now before Parliament. The circumstances out of which the meeting was convened are peculiar. About eight years since this railway was constructed for the conveyance of the mineral traffic of the district to Sunderland. When passing the original act, the company stipulated to take a lease of the lands through which the line would pass for 99 years, paying a way-leave or ground rent, but they neglected to insert a clause which would enable them to purchase the fee simple of the land. Having found that these arrangements were most prejudicial to the company, the annual rent swallowing up the entire profits, and the shareholders, consequently, not receiving a farthing dividend, a meeting of the proprietors was held a few months ago, at which the directors were empowered to apply to Parliament for leave to insert the omitted compulsory clause, as well as to make some contemplated extensions and alterations on the line. This application to the legislature has been threatened with the most strenuous opposition of the land-owners—among whom are the Lord Bishop of Durham, Percival Forster, Esq., the Hon. Mrs. Russell Barrington, the Dean and Chapter of Durham, the University of Durham, and other high and influential parties. To counterbalance the effect of such weighty opposition, the company determined to lay their case before the inhabitants of the different towns connected and benefitted by the construction; and, accordingly the present meeting was convened to give it aid in favour of the bill.

C. BRAMWELL, Esq., in explaining the objects which the directors had in view, observed that, during a period of eight years, they had conducted the affairs of the company on the most economical principles; but the way-leave rent was so burdensome, that not only did it swallow up all the returns of the capital, but obliged them to incur a considerable debt to meet it; and being unable to borrow money except at such exorbitant interest, as frequently 8 per cent., the company had suffered a dead loss of 2000l., arising from the disadvantageous circumstances of the loan. The directors, therefore, foresaw the necessity of some other arrangement being determined on; and, considering that no better could possibly be devised than the purchase of the fee simple of the land, had recommended that course. At the same time they most positively denied any intention of repudiating the way-leave, or breaking the contract into which they had entered with the land-owners. They wished, on the contrary, to act in the most fair and just way, and to give the land-owners the full value of their property, even over and above the amount which they had already received in the shape of way-leave rent.

J. J. WRIGHT, Esq. (the solicitor of the company), in confirmation of the benevolent intentions of the company, as asserted by Mr. Bramwell, mentioned the following startling, if not disreputable, instances of extortion practised by some of the landowners. The number of persons who possessed property through which the line passed was twenty-one, to twelve of these the company had been compelled to pay a way-leave rent of 80l. per acre per annum; to four at the rate of 100l. per acre per annum; three at 200l.; one at 817l.; and they had actually been compelled to pay another at the rate of 1280l. per acre per annum! Now, against such extortion the company did protest, and while they would give every man not only a fair but a liberal compensation for his property, they insisted that terms like those were preposterous, and even ruinous. Their only remedy, therefore, was to apply for powers to purchase the fee-simple of the lands, and this, he considered, the meeting would see the more necessary, when he again referred to the document, from which he had taken the above astounding items. He then found that during the eight years and a half which the railway had been established, they had paid to the landowners, on the average, rent at the rate of 100l. per annum, and altogether, during the same period, they had paid to seventeen out of the twenty-one, upwards of 290l. in the whole per acre; five 1000l. per acre; two 3000l.; and one of them the enormous sum of 9270l. per acre—in every case more than twenty or thirty times the value of the land.—Resolutions were then passed, for petitioning Parliament in favour of the bill and the undertaking, when the meeting separated.

FURNESS RAILWAY.

The half-yearly general meeting of the shareholders was held at Old Palace-yard, Westminster, on Wednesday, the 26th ult., at which the whole of the directors were present, and Mr. BENJAMIN CURRY (the chairman) presided. Among the shareholders who were present by proxy were his Grace the Duke of Buccleuch, and the Right Hon. the Earl of Burlington.—The register-book of shareholders was produced to the meeting, and to which the common seal of the company was ordered to be affixed.—The shareholders present nominated his Grace the Duke of Buccleuch as the person to appoint an auditor to the company.—The balance-sheet of the accounts for the period between the passing of the Act, and the 10th ult., was produced to the meeting, which showed the amount of receipts to be 16,600l., and of disbursements 4115l. 8s. 6d.—giving a balance in hand of 11,484l. 11s. 7d.

The SECRETARY then read the report of the directors, which stated that the principal object of the railway was to connect the iron mines in the neighbourhood of Dalton and the slate quarries at Kirkby Ireleth with the coast, at the two points best adapted for shipping—viz., Barrow and Rampside. The directors had at first intended the line to be single, estimating the cost at 75,000l. (in addition to the loan of 25,000l.), but they had subsequently considered it advisable to secure land for a double line, and to lay a double rail through the tunnels and other parts of the line; the additional cost of this, including the erection of a pier at Barrow, for the benefit and convenience of the iron ore and slate traffic, would be 15,000l. The probable traffic on the line derived from the mineral district it traverses, amply justified its adoption, especially as past experience warranted this belief; the export from Furness of iron ore in the last year having amounted to nearly 100,000 tons, and the directors having the strongest reason to believe that the exports both of iron ore and slate from that district will very greatly increase, from the facilities afforded by railroads for their comparatively easy transport into districts, where they will be of the greatest advantage, but which have been hitherto inaccessible from the cost of conveyance.—The report was unanimously adopted, and ordered to be printed and circulated among the shareholders.—The meeting approved of the recommendation in the directors' report to continue the line of the railway to Ulverston, and authorised the directors to instruct the engineer of the company forthwith to survey and report upon the line to be taken.—The whole of the directors having, under the terms of the Act of Incorporation, retired from office at this meeting, were re-elected.—The meeting then separated.

TAFF VALE RAILWAY.

The half-yearly meeting of the proprietors of this company took place at Bristol, on Friday, the 21st ult.—The CHAIRMAN (Sir J. J. Guest) announced that advantageous arrangements had been entered into with the Marquis of Bute in reference to the charge of wharfage and dockage, which had been fixed at a low rate; a bill, however, was necessary to confirm the agreement, which would be prepared and submitted to the proprietors in a few weeks. A great increase of traffic was observable in the last half-year, and well-founded anticipations of its being augmented by the formation of the Aberdare Valley line. The directors had increased the number of coal waggons to accommodate the proprietors of small collieries, and had ordered four additional engines, while they also contemplated the construction of a double line, and had actually determined on forming one as far as Navigation House.—By the report, it appeared that the increase in traffic on this over the last half-year was 4276l., and over the corresponding period in 1843 6000l. The amount of passenger fares also presented a satisfactory advance. On comparing the traffic on this line for the years 1843 and 1844, it appears that the sum paid for the transit of iron for the six months ending June, 1843, was 2712l. 18s. 5d.; ending December, 1843, 2528l. 11s. 8d.; June, 1844, 3524l. 9s. 10d.; and December, 1844, 3211l. 4s. 11d. Iron ore had paid during the half-year ending June, 1843, 2182l. 8s. 4d.; December, 1843, 1962l. 18s. 2d.; June, 1844, 1678l. 18s.; and December, 1844, 2597l. 6s. Coal and coke had similarly paid up to June, 1843, 6710l. 2s. 7d.; December, 1843, 6779l. 11s. 9d.; June, 1844, 6785l. 2s. 4d.; and December, 1844, 9144l. 2s. 1d. A dividend was recommended of 1l. 17s. 7d. per share of 125l. 4s. 6d. for the half-year, being at the rate of 3 per cent. per annum.—The report was unanimously adopted in every particular, and the meeting separated.

GLASGOW, PAISLEY, KILMARNOCK, AND Ayr RAILWAY.

At the sixteenth half-yearly meeting of this company (JAMES McCALL, Esq., of Daldowie, in the chair), the report of the directors of the past half-year, which was read and approved of, exhibited a continuing increase in the traffic upon the line, and recommended a dividend of 25s. per share on the original stock, being at the rate of 4 per cent., and made payable on the 15th of March next, free of any deduction for income tax. The decision of the Board of Trade, recommending the Caledonian line of railway, and reporting against the Dumfries and Carlisle line, was alluded to, but any steps in the matter were delayed till the intention of the directors of that line be ascertained, when a special meeting is to be called for the purpose of considering what further measures may be taken in reference to this and other projected lines in which the company are interested. (The report stated that a first class iron steamer is to be employed on the Belfast station, along with the *Glen-orm*, early in the season. The *Isabella Napier* steamer is also to ply to Londonderry.—On the motion of Lord BOLINTON, the thanks of the meeting were voted to the chairman, and the meeting broke up.

BRIGHTON, LEWES, AND HASTINGS RAILWAY.

A meeting of the proprietors of this company was held at the London-bridge station, on Monday, the 24th ult., WILLIAM NASH, Esq., in the chair.—The half-yearly report, which merely had reference to the progress of the various works of the company, was, on the whole, satisfactory.—A slight discussion arose on its adoption being proposed, by a question put to the directors by Mr. TROUP, respecting the cost of the undertaking, as he suspected they had not selected the cheapest mode of proceeding, having neglected to offer the contract to competition, whereby they had incurred an unnecessary expense of 100,000l. more than was necessary. He begged, therefore, to ask the engineer what would be the quantity of material, &c., requisite for the undertaking?—Mr. RASTRICK refused to give any such information, as he considered that no proprietor, ignorant as he must be of all such constructions, had any right to put such impertinent questions.—Mr. D. W. HARVEY was surprised to hear such a doctrine as that laid down by a hired officer of the company—because, forsooth, a shareholder was ignorant of the masonry of engineering, he should be kept in ignorance of the probable cost of an undertaking which would affect his interests most materially. He considered that the conduct of Mr. Rastrick was, to say the least of it, uncourteous and unbecoming; and he begged to repeat the question to Mr. Rastrick—what would be the probable cost of the whole works when completed?—Mr. ROWLAND HILL defended the conduct of their engineer, as there was a reason for treating Mr. Troup so cavalierly, and, though the board of directors were willing to give every information in their power, he, for one, must decline having any communication, either by letter or discussion, with that gentleman, who had thought fit to write most insulting letters, impugning the proceedings of the directors, and calling them guilty participants in a scheme with Mr. Wyse. However, for the information of Mr. Harvey and others, who if they had been present at the last meeting, would have heard the subject fully discussed, he would state that the estimate given before Parliament was 360,000l., and for that sum a contract was entered into to construct a double line from Brighton to Lewes, and a single one between Lewes and Hastings. The directors, having subsequently thought it more advisable to make the line double the entire way, had increased the sum to 482,000l., which was the very limit which the project could cost.—With this explanation the meeting appeared satisfied, and the report was unanimously adopted.—The meeting was then made a special one, and at this it was proposed by the directors that full powers be given them to authorise their applying to Parliament for liberty to make a railway from Lewes to the London and Brighton Railway, at Keymer, in the county of Sussex. This, after a slight opposition on the part of Mr. Harvey, who regarded the speculation as ludicrous in the extreme, was passed; and a vote of thanks having been given the chairman, the meeting separated.

EASTERN COAST OF CENTRAL AMERICA COMMERCIAL AND AGRICULTURAL COMPANY.

A general meeting of the creditors by debenture of this company was held at the London Tavern, on Tuesday, the 25th ult., "to receive the report of the committee appointed at their meeting held on Thursday, the 6th July, and of the trustees under the grant, and to consider and determine what steps ought

to be taken upon the said report; which meeting was attended by our reporter and others, but the secretary declined proceeding with the business in the presence of those gentlemen, and who, after a short discussion amongst the shareholders, on the propriety of this step, were accordingly directed to retire. We regret, therefore, that we are thus precluded from furnishing the distant shareholders with any account of the proceedings.

ST. KATHARINE DOCK COMPANY.

A special general meeting of the proprietors of this company was held at the Dock-house, Tower-hill, on Tuesday, the 25th ult., when a very large number of shareholders and other influential gentlemen interested in the proceedings of the company, were present.—THOMAS TOOKER, Esq., in the chair.

The notice of the meeting having been read by the SECRETARY (Sir John Hall), the CHAIRMAN stated that they had met to consider a subject of considerable importance; the capital of the company was 1,352,800*l.*, and they had a floating debt of 1,100,000*l.* pressing upon them. Now, for the reduction of this floating debt, it was recommended to apply the sum of 676,000*l.*—being exactly half the amount of their capital—after which they would have remaining only 42,400*l.* due by the company. It might be asked why they had not had a sinking fund appropriated for the liquidation of their debts, but no sufficient surplus of profits had yet presented itself to authorize the directors to take that step. With respect to the prospects of the company, he was happy to announce they were most satisfactory. The anticipations held out in January last had been fully realised; the influx of ships and business had been unprecedented. The increase in goods between the 1st of January and the 24th of February in this over the corresponding period last year was 10,000 tons; and, since that period, no less than 6826 tons had been added to the amount of goods now in warehouse, which amounted to 70,287 tons. He trusted that the proprietors would agree with the directors in desiring the present favourable opportunity for adopting such decisive measures as should diminish the floating debt. If they thus concurred, he would suggest that the following resolution be adopted by the proprietors:—“That this meeting approves of the extinction of a portion of the floating debt of the company by creating an addition to the joint-stock capital to an amount not exceeding one moiety of the present capital, and that the following be the terms and conditions upon which the funding of such portion of the floating debt shall take place.—viz. That the proprietors have the option of subscribing at par for an amount of such additional stock, not exceeding one moiety of the stock held by them; their assent to be signified in writing on or before the 15th day of March next, (subject to a reasonable extension of such period to be afforded to absentees), and signing an engagement to pay the first instalment of 5 per cent. on the amount of stock so subscribed for, on or before the first day of April next, as also the subsequent calls, according to notice to be given from time to time by the directors; each call to be limited in amount to a sum not exceeding 10 per cent. on account of such additional stock, at an interval of not less than three months from the last call.—That the proprietors of such created stock be entitled to dividend on the amount of instalments paid, which dividend will be payable half-yearly, at the Dock-house, in the months of January and July, to be computed from the first day of January or first day of July in each year, within whichever of such periods the payment of the respective instalments shall have been made.—That upon failure on the part of the subscribers to pay any instalment when called for, the instalment or instalments previously paid shall become forfeited, and the directors be empowered to dispose of the same, at such time, in such manner, and upon such terms and conditions as shall to them appear to be most to the advantage of the company.—That should the whole amount of the sum proposed to be funded not be fully subscribed for by the proprietors, the residue be placed at the disposal of the directors for account of the company; to be sold or otherwise dealt with as they may be deemed most advantageous to the company.”

Mr. SMITH, a holder of 20,000*l.* stock in the company, hoped he should not be deemed offensive if he urged some objection to the resolution now proposed. He was happy, in the first place, to hear that the defalcation of 7700 tons of goods which appeared on the last quarter's accounts was more than counterbalanced by the last month's increase; but he objected to the present recommendation, inasmuch as he considered it would be inconvenient to many proprietors to be called on to pay amounts of money over such a range as three years, to meet the demands they were now about to sanction. A call of 5 per cent. on the 1st of April, and another of 10 per cent. on the 1st of July, might with convenience be met, but, when indefinite and repeated demands might be made upon holders of stock, it might be prejudicial to his interests to take measures to meet the call. He, therefore, moved, as an amendment.—That the debt be paid off from time to time as the payment of debentures should fall due.—The CHAIRMAN observed, that this mode of reducing the debt had been under the serious consideration of the directors, who were of opinion that it was utterly impracticable.—Mr. SMITH accordingly withdrew his amendment, and a vote of thanks being passed to the chairman and deputy-chairman, and especially for having brought the subject of funding under consideration, the meeting separated.

GENERAL STEAM NAVIGATION COMPANY.

The usual half-yearly meeting of the General Steam Navigation Company took place on Tuesday, the 25th ult., at the office of the corporation, Lombard-street, at which there was a numerous assemblage of proprietors. The chair having been taken by Mr. JOHN WILKIN, a report from the directors, and the accounts for the year ending the 31st December last, were read, from which it appeared that the transactions of the company had been followed by increased prosperity, and that the general condition of the corporation's affairs were highly satisfactory. The customary dividend and bonus being declared, thanks were voted to the chairman and directors for their continued exertions to promote the interests of the company, when the meeting separated.

IRISH WASTE LAND IMPROVEMENT SOCIETY.

The half-yearly meeting of this company was held at the King's Head Tavern, Poultry, on Tuesday, the 25th ult.—The Right Hon. the Earl of Devon took the chair on the occasion.—Mr. DRY (the secretary) read the directors' report, as follows:—

In meeting the proprietors on this occasion, conformably to the Act of Incorporation, the directors beg leave to refer to the report of Col. Robinson for the details of the progress made upon the society's estates during the past year, and which they cannot but hope will give general satisfaction. The directors next request the attention of the meeting to the state of the fourth call, and the present available funds of the society. That call, which was made on the 4th of March last, upon 2960 shares, payable by two instalments of 1*l.* each upon the 4th of June and the 4th of September following; it will be remembered, was required to pay off the debt of 8000*l.* to the bankers, and to meet the necessary expenditure upon the estates. The 8000*l.* was paid off on the 4th of January last, reducing the balance, stated at the foot of the account, made up to the 31st of December last, and showing the result of the call to be as follows:—viz. First instalment, 804*l.*, and of the second 890*l.*, remain unpaid—making together a total of 1703*l.* in arrears, and 899 shares liable to forfeiture, as will appear by the statement to be submitted to the shareholders present, who have this opportunity of expressing their wishes on the subject. The directors now submit an abstract of their receipts and payments for the half-year ending the 31st of December, 1844, together with a statement of assets and liabilities on the same date, from which it will be seen that the total balance of cash was at that date 2480*l.* 18*s.*, and the balance of assets and liabilities, 10,845*l.* 13*s.* 6*d.* The directors have only to add, that the Act of Incorporation requiring the four directors who have been longest in office to retire at this meeting, the following gentlemen came under that requisition, but are re-eligible:—viz. William Ormsby Gore, Esq., M.P., William Blount, Esq., Edward Joshua Cooper, Esq., and Robert Pennohy Staples, Esq.

Col. ROBINSON then read his report, which was a well-digested paper, but too lengthy for insertion in this Journal. The report went to prove that, “by statistical tables and returns referred to in previous reports, the tenants in general improved their little farms, and increased their cultivation and crops in nearly a direct proportion to the number of available working persons of both sexes of which their families consisted.”

Mr. BIRMINGHAM moved the adoption of the reports. He did so from his own experience of Ireland, and the excellent manner in which this company's estates were managed. Any one who went over would find there an industrious, cleanly, and hospitable set of people, who were fast improving in the arts of agriculture, and gradually arriving at a state of prosperity. To show the value of the allotment system, he would mention a circumstance of a sale of about two hundred Irish acres of Crown lands, let out in small allotments, and about twenty miles from this company's property, which took place very recently, and fetched a sum of about 5000*l.* (Hear.) He had the greatest confidence in the noble chairman and the other directors, and could say that they were acting in the most judicious manner with regard to these estates. They had about 20,000 English acres, for which they paid a rental of about 1500*l.* a year. Let but the Dublin and Galway Railway be made, and the truth of this observation would be experienced:—viz. that their property would double and treble before ten more years had expired. (Hear.)—Mr. WELSH could also testify to the excellent management of Col. Robinson, from a visit to the estates, and would cheerfully second the motion, which passed unanimously.

W. O. Gore, Esq., M.P., William Blount, Esq., E. J. Cooper, Esq., and R. P. Staples, Esq., were then re-elected directors.

Mr. WRAY, Capt. Denny, Mr. Birmingham, and Capt. Bond, entered into the subject of the arrears, and at their request the list of defaulters was read to the meeting.—Mr. WRAY regretted to find amongst the defaulters two of the directors they had just elected. (Hear, hear.)—Capt. DENNY said it would be much preferable for gentlemen to sell their shares to others who were disposed to go on with spirit, than to cripple the finances by their lukewarmness.

A resolution was then passed for the directors taking means to obtain the arrears, and giving them power to forfeit the shares in case of ill success.

The CHAIRMAN said, that although their share list should become more limited, those who remained by the company would be the more benefited.

Mr. WILSON paid a high compliment to the benevolence and liberality of the noble chairman, who devoted so much time and attention to the proper management of their estates. The distribution of prizes was a great stimulus to the tenants, and more particularly when that distribution was superintended by the noble Earl in person, which gave the circumstance an éclat which it could not obtain under other circumstances. (Hear, hear.) Having the most

perfect confidence in the noble Earl and the other directors, he had great pleasure in moving a vote of thanks to them for their excellent management.—Mr. WRAY seconded the motion, which was passed by acclamation.—The Noble CHAIRMAN returned thanks, and pledged his continuance of support to the objects of the society.

A separate vote of thanks was also moved to Col. Robinson by the Earl of DEVON, and seconded by Mr. SMITH, and was passed by acclamation.—The CHAIRMAN gave every praise to the assiduity and intelligence of the Colonel in the management of the society's affairs.—A *pro forma* vote of thanks to the noble chairman for presiding then took place, when the meeting adjourned.

HUNGERFORD AND LAMBETH SUSPENSION FOOT-BRIDGE COMPANY.

The half-yearly general meeting of the above company, was held at the offices, on Thursday, the 27th ult., WILLIAM HAWES, jun., Esq., in the chair. Mr. LAWRENCE (the clerk) having read the advertisement convening the meeting, the CHAIRMAN said, previous to his reading the directors' report, he would beg to say a few words:—this being the first meeting at which they could state, for a certainty, the time when the bridge would be opened to the public, and it would be observed by the report, that the directors proposed that, for four weeks, from the 24th March to the 23d April, the passage should be free from toll, at which latter period the whole of the works would be finished, when a toll of one half-penny would be collected from each passenger. He merely mentioned it, before reading the report, as he was aware an amendment would be proposed.—The Clerk then read the directors' and engineers' report, together with a statement of the receipts and disbursements; from which it appeared that the bridge would be opened on the 24th of March, being Easter Monday, although the works would not be quite complete by that day, but by the 22d of the ensuing month—up to which day the toll would not be demanded—the entire undertaking would be finished. Subsequent to its completion, a toll of one half-penny would be exacted from each passenger, leaving the consideration of a return ticket being given to a future period. All the eighth new shares had been applied for, and the earliest opportunity will be taken for obtaining the authority of Parliament, to improve the southern terminus. It is anticipated that the most advantageous results will follow the formation of the railway terminus, close to the southern side of the bridge, as such an object could not fail imparting utility to the public, and profit to the shareholders. The balance-sheet showed the receipts to be, up to the 31st of last month, for calls, 69,021*l.*, loan commissions 2,600*l.*, rent, 45*l.*, dividends 6*l.* 15*s.*, and loans 2,500*l.*, giving a total of 77,571*l.* 15*s.* And the payments are stated to be, for works, engineering, surveying, &c. 71,681*l.* 14*s.* 11*d.*, approaches 14,524*l.* 6*s.* 3*d.*, Hungerford Market share 21*l.* 2*s.* 1*d.*, office furniture 36*l.* 17*s.* 6*d.*, and a balance in hand of 388*l.* 2*s.* 10*d.* On a motion that the report be received, adopted, and entered on the minutes, Mr. EYGLASH moved, as an amendment, that the toll should be one penny each passenger, which, after some discussion, was negatived; the Chairman having clearly pointed out the impolicy of high tolls, as evidenced in the case of the Waterloo Bridge, where the receipts, when the penny toll existed, did not exceed 10,000*l.*, and now, when reduced to one half-penny, produced between 11,000*l.* and 12,000*l.*; he also instanced a foot bridge at Rouen, which at first opened at one sou, and produced no results; but, when reduced to five centimes, the receipts enabled them to pay a dividend of from 4 to 5 per cent. on the capital expended. A resolution was then passed unanimously, against opening the bridge free of toll, as proposed, on which the Chairman remarked, that, by passing such a resolution, the meeting completely negatived the report of the directors, which did not, however, appear to be the sense of the meeting, as after a resolution, proposed by Mr. FEW, and carried, that the subject of return tickets be taken into consideration at the next August meeting, a motion was made, and carried unanimously, that the report be confirmed and adopted, subject to the amendments above-mentioned. A vote of thanks was then passed to the Chairman, who, in acknowledging the same, took the opportunity of stating, that the meeting would observe, that they had a balance in hand, and he was happy to say, the undertaking would be completed within the estimates originally given, which was a circumstance of rare occurrence in public buildings.

PROVIDENT CLERKS' ASSOCIATION.

The fourth annual meeting of the Benevolent Department of this association took place at the London Tavern, on Thursday evening, the 27th ult., and was exceedingly well attended by clerks in general.—The chair was taken by JOHN ABEL SMITH, Esq., M.P. (the treasurer of the association).

Mr. GEORGE THOMAS (chairman of the board of management) read the report, which was of a gratifying nature. The annual receipts had increased, and the vested capital was 10,100*l.*; the loan system had worked favourably—the amount lent to members in the year was 370*l.* The first annuity of 25*l.* to a member, and 15*l.* to a member's widow, would be granted in May, when the election would take place, and the event was to be commemorated by a public dinner at the London Tavern, at which John Abel Smith, Esq., M.P., had agreed to preside. No death had yet occurred amongst the assured members. The managers had agreed to continue their subscription to the Sanatorium for the next year, where the members could be admitted in case of illness, at one-half the usual charge to the public. Thomson Hankey, Esq., had been elected a trustee in the place of the late Jeremiah Harman, Esq. The number of new members that had joined the society in the past year was 177, out of which 110 effected assurances in the benefit department, and 67 subscribed to the benevolent fund. Amongst the donations was 100*l.* from James Alexander, Esq. The three years' subscriptions from the merchants and bankers having now closed, the managers were happy to say, that the association was enabled to provide for all its expenses out of its own resources. The body of clerks generally were invited to enrol themselves members of this society, in order to lay up that provision which might be necessary for themselves, their widows, or children, in the time of necessity; and, in conclusion, the present members were strongly urged to exert themselves individually to introduce new members.

Mr. PIERCE (Bank director) moved the adoption of the report, which was seconded by THOMSON HANKEY, Esq., and passed unanimously.

The meeting was also addressed by the worthy Chairman, Sir John Pirie, Bart., Mr. Gilbert, Mr. Welch, Mr. Rennell, Mr. Maitland, Mr. G. Thomas, Mr. P. N. Johnson, Mr. G. Pollard, Mr. Henry Aston, Mr. Reynolds, and other gentlemen.—Letters were read from Thomas Baring, Esq., M.P., and William George Prescott, Esq., expressing their warm interest in the association, and regrets at not being able to attend.—Resolutions were passed unanimously, voting the thanks of the members to the trustees, treasurer, medical officers, honorary solicitors, actuary, and board of management.

Mr. HENRY ASTON then moved a vote of thanks to the worthy chairman for his kindness and liberality towards the institution, which was seconded by Mr. GEORGE POLLARD, and passed amidst several rounds of acclamation.

The CHAIRMAN made an eloquent speech on behalf of the association, and pledged his continual support to an institution having for its object the benefit of clerks—a class of individuals with whom he had been associated from an early age.—In conclusion, he hoped the proposed dinner would meet with that public support which it merited from principals, and from clerks in the metropolis more particularly, and ardently wished for the prosperity of the association.—The meeting then separated.

GENERAL ANNUITY ENDOWMENT ASSOCIATION.

A special meeting of the members of this association, was held at the Hall of Commerce, Threadneedle-street, on Monday, the 24th ult., for the purpose of taking into consideration the propriety of altering the 12th, 17th, 22d, 27th, and 29th rules of the Society, and for amending the same in such way as might then be determined. The chair was taken by C. P. PARKIN, Esq., one of the trustees, who requested the SECRETARY to read the circular sent to the members. A SHAREHOLDER wished to know, why Mr. PARKIN was fixed upon, in preference to Thursday, the usual day?—The CHAIRMAN said, because they could meet earlier than on the board day, and was thought to be more generally convenient. In fixing on Monday, the directors had only consulted the convenience of the members in general.—Mr. FOSTER attributed the small attendance to that circumstance, and thought a longer notice should be given of the grave subjects to be discussed. With this view, he should propose an adjournment of the meeting to that day fortnight.—Mr. SEWELL seconded the motion.

Mr. D. G. WILLIAMS thought Monday was the best day that could be appointed. The objections of Mr. FOSTER were too vague and indefinite, for adjourning the business of the day. The meeting was sufficiently numerous, and he should, therefore, move as an amendment, that they proceed to business.—Captain BARBER seconded the motion, which was carried by a very large majority.—The SECRETARY read the requisition, in respect to the altering of the 17th rule, and submitted the proposition, “for allowing six annuities to be nominated to one nominee, instead of four.” The directors had not considered that they could give an opinion on this subject, and so referred the question to Mr. Ansell, the Actuary, who said he saw no objection to the proposal, which would then be much less than was allowed by other insurance offices.

A MEMBER asked, if the directors were in the habit of requiring the baptismal register at the time a member entered, instead of leaving it till after the death had happened.—The CHAIRMAN said, they did require it now on entering, but it could not always be obtained immediately, for parties might have to send to various distant places for it. They had notice, that no annuity would be paid till it was produced.—The motion for altering the 17th rule, as proposed, was then agreed to unanimously.—The members now having become very numerous, the meeting was removed to a larger room.—The requisition for altering the 22d rule was then read to the meeting.

Mr. SEWELL rose to propose, that the annuity on the civil fund, should be increased from its present amount (17*l.* 8*s.* 4*d.*) to 20*l.* per annum. He adverted, in very strong terms, to the favourable condition of the society, with an invested capital of more than 185,000*l.*, and referred to a number of figures which exhibited much care, in arriving at just conclusions. The result of his calculations was, he said, to show, that the society could well afford to pay the widows 20*l.* per annum, instead of the present amount, and they would then have a surplus on the annuity funds of 23,000*l.* in hand. He alluded to the

management of the Royal Naval and the London Annuity Societies, where the annuities are in much greater proportion. He still pressed his arguments, in spite of the conclusions come to by the actuary, for he thought the calculations were so simple, that they only required common sense, and the knowledge of the rule of three, to make them intelligible. He concluded by saying, that he had been the means of bringing upwards of 100 members to the society, and they mostly looked to him for seeing their interests protected. It was only at the urgent request of a number of friends, that he had gone into the subject of their finances, which were quite ample to allow an increased allowance to the widow and orphan, in whose behalf he begged to move the resolution, that the annuity be increased to 20*l.* per annum, instead of being calculated on the present mode.—Mr. FOSTER seconded the motion.

Capt. BARBER deprecated frequent changes in an institution of that sort. It was not the way for it to maintain its present respectable footing in the public estimation. The directors had taken the responsibility of proposing, and the shareholders of giving, the widow 17*l.* odd, when the actuary had advised 15*l.* 15*s.* He should move, as an amendment, that the annuities remain on their present scale.—Mr. HICHENS gave Mr. Sewell great credit for his efforts on the part of his friends; but he would ask why they had spent 500*l.* for the actuary's report? Was it not to guide them in their allowance? He had every regard for the widow and orphan, but he would not advise over payment, or they should soon come to 10*l.* He would second the amendment of Captain Barber.—The CHAIRMAN said the directors had left the matter in the hands of the members.

An amendment was also proposed by Mr. W. PAIR, and supported by a long array of figures, in which he maintained they ought not to go beyond the limit of 15*l.* 15*s.* as advised by the actuary.—This amendment was seconded, but was withdrawn, and that proposed by Capt. Barber was carried by nearly all the members present.—The other resolution on rule 12 was adopted; and as requested altering the rule 29, that was postponed till the next meeting, notice thereof to be given in the circular to the members.—Mr. SEWELL, then moved, and Mr. HICHENS seconded, a vote of thanks to the chairman, which was carried by acclamation, and the meeting adjourned.

NORTH WALES RAILWAY.

The importance of this line of railway, as connected with the progressing mineral districts of North Wales, and as opening additional and improved means of communication with similar districts of Ireland, has induced us to select a few of the more prominent points for insertion, that our readers may be better acquainted with the project:—the more especially so, as the line has lately become conspicuous in the market—the shares having been allotted, and already commanding a premium. The reasons assigned for this favourable reception, appear to be the important advantages it promises to the commercial interests of North Wales and the agricultural districts of Carmarthenshire. It also will afford manifest facilities for shipping the enormous export of slates at Porth Dylinau. The copper, lead, and other mines, and the valuable stone quarries at the Rivals, recently opened by a Liverpool company, contiguous to the proposed line of railway, will also have thrown open for their produce this advantageous means of transit to the southern markets, as well as an immediate railway conveyance to those ports in direct communication with Liverpool, and consequently with large foreign markets, as well as those of Scotland, and the northern and midland counties of England. It was said by Sir Robert Peel, on his introduction of the tariff, that the importation of cattle from Ireland increased in 20 years from 17,000 head into all the English ports, to 100,000 head into Liverpool alone. The extensive chain of railways now forming in Ireland, and the completion of the proposed line of railway between Kingstown and Wicklow, and Waterford and Wicklow, will cause the Irish cattle traffic, which at present enters England by Liverpool and Bristol, to be concentrated on Porth Dylinau, the sea voyage between Wicklow and Porth Dylinau being shorter by five geographical miles than by any other ports in the English and Irish Channels; and shorter by one-half than between those ports which now enjoy the Irish cattle trade. The course of this line by the engineer's report and sections, is exceedingly favourable both as respects gradients and the inexpensive character of the works. The cost of the railway and works will not exceed 300,000*l.*

ON THE PREVENTION OF STEAM-BOILER EXPLOSIONS.

On the occasion of the late disastrous accident at Manchester, a letter was, as our readers may remember, written by Mr. Taylor, Lecturer on Chemistry in Guy's Hospital, to Mr. Chapman, the Coroner, who presided at the inquest, stating his opinion, that the true cause of the explosion had not been noticed by any of the engineers, or other witnesses, at their examination; as he attributed it solely to the insufficient thickness of the copper forming the crown of the fire-box. Evidence was given that the plate was three-eighths of an inch thick, and gave way at the side nearest the fire-box. This was considered by Mr. Taylor as a clue to the origin of the accident, and he adduced the instance of the explosion on the Dover and Croydon Railway, in December, 1844, by which a man named Robert Buckley was killed, and which occurred under precisely similar circumstances. The copper top of the fire-box, half an inch in thickness (i. e. four-eighths), was then blown out, and led to the accident. In that case, the valves were made to lift at fifty pounds to the inch; in the Manchester case at sixty pounds. Engineers did not appear, to Mr. Taylor, to be sufficiently aware, that the strength of copper is diminished by raising the temperature, in a much greater proportion than the strength of iron; that a copper plate, three-eighths of an inch thick, which will bear a considerable weight at common temperatures, will be immediately rent at a high temperature. For a pressure of sixty pounds on the inch, the temperature of the steam in the Manchester case must have been about 295 deg. of the thermometer. At this temperature, copper has been proved to have lost one-tenth of the strength which it usually has when proved at the ordinary atmospheric temperature. Mr. Taylor had repeatedly observed, that copper which will bear a weight when cold, immediately breaks when only gently heated, and at his representation, the Dover Railway directors had taken up the subject, and were now having the matter investigated. The fact, he considered to be, that engineers did not make the copper plate of the fire-box half thick enough, because they considered that copper was as strong when heated to the temperature of the enclosed steam, as when cold; a most certain and dangerous error. Shortly after this opinion by Mr. Taylor, another suggestion, as to the cause of the accident, was made in an opinion, published at the time, as furnished by a correspondent. The explosion was there attributed to a defect in the, so called, safety-valves, occasioned by corrosion, and he proposed, as a remedy, that a small space in the upper side of the boiler be made so thin, that if the other safety-valves should not act properly, this weaker part would become ruptured, and thus do all the duties of the most perfect safety-valve. A correspondent writes, that, after giving the subject his careful consideration, he is of opinion that Mr. Taylor's suggestions are untenable and contradictory to themselves, while those of our correspondent are worthy of the most serious attention. He reduces Mr. Taylor's views to the material opinion, that the tensile strength of copper diminishes in proportion to its increased temperature, and his belief that engineers do not make the plate of the fire-box half thick enough. This is refuted by referring to Mr. Taylor's own subsequent statement, that at the Dover and Croydon accident, half-inch copper burst with fifty pounds pressure on the square inch, and consequently a less steam temperature than 295 deg., while it is admitted by all, that the Manchester and Leeds three-eighths copper sustained sixty pounds on the square inch, and 295 deg. steam temperature; thus proving that the adoption of a thicker plate of copper would be a most dangerous experiment. Our correspondent further considers the fact to be, that there is a medium thickness to be observed in the making of all boilers, to the external surfaces of which it is intended to apply heat; and he very much doubts whether inch-thick copper plate would ultimately be as safe as three-eighths-inch, well stayed, owing to the unequal expansion of the fire and water surfaces, caused by their difference of temperature. Hence cracking, blistering, and burning, of the surface exposed to the action of the fire. It is well known, that wherever there are stay rods rivetted to the bottom of a boiler, over the fire-place, the plate underneath is more liable than any other part to crack and blister, and ultimately to become leaky; and, since heat is more rapidly transmitted through iron than through copper, the evil would be the greatest in the latter case.

With regard to the safety-valve, he perfectly agrees with our other correspondent, that the valves so called are any thing but safety-valves, unless their indications are watched and promptly acted upon, having proved, by means of a mercurial gauge attached to a high-pressure boiler, the safety-valve of which was loaded to thirty pounds upon the square inch, that it is possible to raise the pressure of the steam many pounds to the square inch above thirty, before the discharge of steam was equal to the quantity generated; from which it would appear, that the same pressure that will lift the valve the first one-sixteenth of an inch, will not lift it the second; which is especially the case where a spring is used. He would, therefore, suggest, that the moment that steam to any extent is seen to issue from the safety-valve, the engineer should immediately blow off a portion of it into the water tender; or else, by assisting the valve to rise, allow such a quantity to escape, that, when he leaves the safety-valve to its own action, the steam will no longer continue to blow off at it.

IRISH RAILWAYS.

In accordance with our promise, we return again to the subject of railway communication in Ireland. In a former number we gave a sketch of the different lines projected in the North; and, therefore, our task is limited, at present, to a description of those projects in other parts of Ireland—the majority of which have been before the Board of Trade, and been either recommended or reported against by that body. Nothing could give us greater pleasure than being able conscientiously to recommend to the notice of English capitalists, all the Irish Railway schemes now before the public; for, we are satisfied that nothing would tend more to raise Ireland, from her low estate, than opening up the country by means of railways, and thus giving our Western countrymen all the facilities of comparatively free international communication.

But this cannot be, so long, at least, as our present system exists; it is not merely necessary that a projected line should be beneficial to the country through which it passes, and the towns at either termini, but also as a mercantile investment, that it could be calculated on to pay. The majority of the lines, we formerly noticed, we considered as good investments; the Dublin and Cashel, so far as we can judge at present, will yield a fair return to the speculators. The Dublin and Belfast Junction promises also a good return; and the Amagh, Coleraine, and Portrush Line, we have every reason to believe, considered especially with reference to the density of the population—the richness of the soil—and the flatness of the country—will not be inferior, as a commercial speculation, to any railway in Ireland. So far, our task is pleasant; but we must now reverse the picture, and notice some railway projects, which neither considered in themselves, nor in the manner in which it is attempted to get them up, deserve support. Of those in the North Western District, the first that claims our attention is one projected from Enniskillen to Sligo—capital, 400,000—37 miles long. The prospectus states that "it will pass through a very productive and populous country, nor has there been any line projected in Ireland that will be of greater public utility"—"that the traffic immediately available on the line is very considerable, and the levels of the country are favourable to the undertaking, the line can be constructed at moderate expense, and that there can be no doubt but it will prove highly remunerative to the shareholders." Now this statement is very far from the truth; it will be of little public utility—there is no traffic on the line more than sufficient to support a common stage car—the country is exceedingly difficult, and no railway could be constructed with either favourable gradients, or at any thing approaching to reasonable expense.

If shareholders can be found, which we doubt, to invest their money in this hopeful scheme, it would remunerate some one, but not those who subscribe for shares. We should like to see the sections, traffic tables, and engineer's report; does he pledge himself to the truth of the statements in the prospectus, as to the favourable levels and great traffic? We hope not.

A railway in this direction is not required; the country through which it is proposed is mountainous, uncultivated, and very thinly populated. There is no trade or produce to carry, and the traffic of Enniskillen, and the lands on the borders of Lough Erin, go by the excellent water carriage on the Lough to Ballyshannon, or will go by rail to Derry. Any one who states that a railway is possible through the country described, at a reasonable expense, and that it would be likely to prove remunerative to the shareholders, must either be guilty of a wilful misrepresentation, or has never seen the country, and any proposition for establishing a railway here is a delusion—no merchant, either in Sligo or Enniskillen, has allowed his name to be placed in the prospectus.

Sligo and Shannon Junction Railway. This is a short projected line, from Lough Allen to Lough Gill, eleven miles, and will make Sligo the port of that noble river, the Shannon, on which the Government have expended 700,000*l.*, in rendering it navigable for steamers of 150 horse power. There is, at present, no outlet for the trade but Limerick, distant 160 miles, from Lough Allen; it also passes through the Arigna iron and coal field, the traffic on this line will, in our opinion, be much greater than the projectors calculate. Let us now look to the western part of Ireland. The only railway approved of in this part of Ireland, is one to Galway, through Athlone, starting from the Cashel line at Portlinton. The Dublin and Mullingar line, with branches to Longford and Athlone, has been disapproved of; this we cannot understand. The Great Western is rather a round to Galway, but it takes in the important town of Athlone in its route, which is a sufficient justification for the bend to that place; but, why the other has been disapproved of, we are at a loss to conjecture. We can well understand why the branch from Mullingar to Athlone should be lopped off, but why the line to Longford should be, we cannot see the slightest reason. By rejecting this to Longford, all hope of an extension to Sligo, a far more important part than Galway, is lost, and the towns of Carrick on Shannon and Boyle, for an extension from Athlone would be a directly competing line to the Shannon, on which, as we before stated, the Government have expended a large sum in rendering navigable, and they would be bound to oppose the line thus competing.

By the present decision, if final, a district of country, from Westport to Balbriggan, the entire breadth of Ireland, and from Enniskillen to Athlone, one quarter its length, is shut out from the benefits of railway communication, and this surely should not be. We hope that Parliament will reverse the decision of the Board of Trade, and allow the Dublin and Longford line to pass—minus the branch to Athlone. Neither of those lines present any engineering difficulties, except passing the Shannon at Athlone, and the Such at Ballinasloe, and these are more expensive than difficult, both lines ought to pay, if properly and economically constructed.

The southern district now claims our attention; and the first in place, as in importance, is the extension of the Cashel from Thurles, on to Cork. We have no hesitation in prophesying, that Cork will be the packet station for America—we may live to see it. Its magnificent harbour, its splendid establishments, render it peculiarly fit for this purpose, and sooner or later, the American packet station it must become: when this takes place, and it is only a question of time, it will be similar in its character to the London and Holyhead, of which it would, in fact, be the extension, but not so difficult to construct, and passing through a thickly populated and well-cultivated country, that it ought to pay them 8 per cent., does not admit of a doubt, that it will pay now a reasonable per centage is equally certain. What would add greatly to its trade and utility would be the construction of that portion of the Direct Limerick and Cork (rejected), between Limerick and Charleville: this would give a direct line between Limerick and Cork, and we believe the portion referred to would pay for itself, it runs through the richest land in Ireland, and there is no engineering difficulty.

The whigs wanted to get 2,500,000*l.* for the line from Dublin to Cork, to be constructed under the superintendence of the Irish Board of Works, (save the mark!) but Parliament very properly refused the job, and left the field open to private enterprise.

To this invaluable undertaking, the Limerick and Waterford stands next in importance, and an important line it is without doubt; the portion from Limerick to Tipperary will carry all the Dublin traffic, and there is no doubt but the produce of the interior will be brought to Limerick by it for shipment; the traffic to Waterford from Clonmel is at present very great, the land is rich, populous, and well cultivated. We look on this as a very desirable investment. The Cashel Company oppose this line strongly, or rather they wish to substitute a line of their own, going over the same ground, from Tipperary to Limerick, and leaving the other portion alone; this is not quite fair—to select the best paying portion, and leaving the country without the other part, such policy as this will not answer; fair play must be their motto, if they wish to succeed. What has become of the extraordinary pamphlet, published concerning this Limerick and Waterford line?

Limerick to Ennis has been abandoned for the present, but it is a good line and easily made.

Kilkenny and Waterford has been approved of, and justly so, the trade in coal, lime, &c., will be very great, and the carriage of agricultural produce will be a good source of revenue, as will also be the passenger traffic, the country is very favourable for a railway; the rails to be used are "wooden ones," with the "Prosser guide wheels;" this is an experiment, should it succeed, great good will be gained, and if it should fail, nothing will be lost, except to the shareholders. The Kilkenny junction has been postponed, why, we cannot imagine; by this postponement, the Waterford and Kilkenny folk are deprived of a speedy communication with the metropolis, this line should, in the first instance, have been joined with the Kilkenny and Waterford, and under the one management, they would then pay well.

What in the name of all that is wonderful are the projectors of the Waterford and Kingstown, the Wexford and Carlow, and the Wexford, Car-

low and Dublin Junction Railway fighting about, it would appear that the poorer the country the greater the number of schemers, the two last-mentioned run parallel, from Carlow (Cashel, R.), through N. T. Bung and Ennisecorby to Wexford, but what they are to carry puzzles us very much, the trade of Wexford is almost nominal, and the passenger traffic less; the country very poor, thinly populated, and difficult. The most important town in the county New Ross is not touched on by either, what the object of the companies can be we do not know, unless it be to bring down the Carlow pigs to the Wexford steamers, however, somebody will benefit by it, certainly not the shareholders.

The Waterford and Kingstown begins at Waterford, passes through New Ross, Ennisecorby, the villages of Stones and Gorey, and on by the coast to Kingstown and Dublin, bad as the others are, this is worse, the country poor and difficult to a degree, it never can pay.

Cork and Bandon is a line of merely local importance, it should, however have been carried round by Kinsale, as proposed by Vignolles, this line is difficult and cannot pay.

Two other projects have just come out—viz., from Cork to Killarney, and from Killarney to Tralee, Limerick, Nenagh, and Roscrea, where it joins the Dublin and Cashel; these are, in point of fact, but one line from Cork, through the county Kerry, Limerick, and Tipperary, winding like an enormous serpent through towns and villages without any specific object in view, but to string them on a line, and without regarding the existing railways. We are really surprised at such projects as these being brought forward, they injure legitimate enterprise, and prevent those, who burn their fingers in them, from contributing to really good projects, and retard the improvement of the country in a corresponding degree.

The country is exceedingly difficult in Kerry, particularly in order to obtain a favourable gradient, some of the cuttings and embankments should be at least 200 feet high, and tunnels without end, the line as projected, or indeed any line here is, in point of fact, impracticable.

IMPROVEMENTS IN THE MANUFACTURE OF IRON.

[Specification of patent granted to T. L. Rushton, iron manufacturer, Bolton-le-Moors, Lancashire, for certain improvements in the manufacture of iron.]—Civil Engineer.

The invention consists of improvements in the manufacture of malleable iron in reverberatory furnaces, and the manner in which the same are to be carried into effect, is fully described and ascertained in the following statement. In the manufacture of malleable iron from pig or refined iron, it has long been the custom to throw hammer slack, roll scale, red ore, calcined iron stone, or other suitable material, consisting principally of oxide of iron, into the puddling furnace, for the purpose of protecting the sides and bottom thereof, and with a view to feed or add to the weight of the product, owing to the decomposition of their oxygen by the carbon contained in the pig-iron. The additional yield has, however, hitherto been only partially effected, owing to the small quantity of carbon contained in the pig-iron generally used for the purpose. The patentee's improvement, in this respect, consists in mixing the hammer slack, roll scale, red ore, calcined iron stone, or other oxide, in a finely pulverized state, with a proportion of finely pulverized charcoal, coke, or other suitable carbonaceous matter (which should be as free as possible from sulphur), and introducing the mixture into the furnace before, or along with, or immediately after, the charge of pig or refined iron. The mixture of ore and carbonaceous matter is, from time to time, turned over, till the iron is melted, and both are then worked together in the usual way. The process is similar to that described by Mr. William Neale Clay, in the specification of his patent for improvements in the manufacture of iron, enrolled the 30th September, 1840, but the proportions I use vary from 17 up to (but not including) 28 per cent., in weight of carbonaceous matter to the ore or oxide, according to circumstances, whilst his invention is confined to combining carbonaceous matters in quantities not less than 28 per cent. by weight of the iron ores employed. The proportionate weights of carbonaceous matter and ore, or oxide, which, within the limits above named, the inventor uses, depend upon the quantity of carbon or oxygen they respectively contain, the description of pig-iron used with them, and the relative proportions of pig iron to the mixture; he has found the following proportions give very excellent quality and yield of iron—to 480 lb. of No. 4 pig-iron, the inventor adds 84 lb. of Lancashire hematite ore pulverized, and mixed with 20 lb. of powdered coke.

If No. 1 pig-iron be used a still less proportion of carbonaceous matter will suffice, but if the charge of pig No. 4 be reduced to 420, and the ore increased to 180 lb., the coke should be 48 lb. The inventor does not limit himself to the definite quantities, nor the precise proportions of iron, carbonaceous matter, and oxide here given, as they will necessarily differ according to circumstances, but as a general principle, if the pig-iron to be used be of a very fluid or highly carburized description, such as is generally designated as No. 1 in the trade, then the proportion of carbonaceous matter to roll scale, red ore, or other oxide of iron, should be proportionately less than if white or plate iron be employed, and the proportion of carbonaceous matter should vary according to the relative proportion of ore or oxide used with the pig iron, it being advisable to use a larger relative quantity of carbonaceous matter with the ore or oxide when the pig is comparatively reduced in weight than when more pig is used; it may also be added, that when the mixture amounts in weight to one-fourth of the weight of pig iron charged, the mixture should be introduced into the furnace sooner than the pig iron, and turned over until it begins to adhere to the workman's "rabble" or tool, when the pig may be charged, but smaller proportions charged with the pig iron will generally come round by the time it is melted. The inventor does not prefer in any case introducing the mixture after the pig iron. The second improvement consists in the addition of clay, argillaceous ironstone, or other substance containing alumina to those ores or oxides which, manufactured by the aid of carbonaceous matter into malleable iron in reverberatory furnaces, produce iron of the quality usually denominated red-short. The clay or other substance to be used should, like the ores and carbonaceous matter, be ground fine and dried before mixing, and a larger relative proportion of carbonaceous matter to a given quantity of ore should be employed than if no clay were added, as the clay, in addition to its capability, when fused, of taking up some of the carbon, will, by diminishing the contact of the carbonaceous matter with the ore or oxide, prevent so complete a decomposition as would otherwise take place, so that generally more than 28 per cent. of carbonaceous matter will be required to the ore when clay is used. The proportion of clay to be used will vary with the nature of the ores employed, but from 4 to 10 per cent. in weight of the ores employed will suffice with the Lancashire hematite ores. If too large a quantity of clay be used the tap cinder will be very sluggish, and that ball when under the hammer will emit continued showers of darkish red cinder sparks, and if too little be added the iron will retain some of its red-short quality. The inventor has found the ground-fire clay from Worsley, near Leeds, very suitable as a substance for effecting this improvement. The last improvement consists in combining a portion of the tap or flue cinder of puddling or ball furnaces with a portion of clay, chalk, carbonaceous matter, and rich iron ore, or some of these substances, and manufacturing them, either with or without pig or refined iron, in reverberating furnaces, into malleable iron. The same process of pulverizing, drying, and mixing the several materials, as well as their treatment in the furnace, as before described, must in this case be pursued.

To 150 lb. of tap cinder, containing 71 per cent. of protoxide of iron, add 150 lb. of Lancashire hematite ore, 20 lb. of ground Worsley fire clay, 20 lb. of chalk, and 100 lb. of coke dust. The inventor does not, however, limit himself to these or to any proportions of the constituents, when tap or flue cinder are employed as above; nor does he necessarily use iron ore with the cinder, though it is more advantageous to do so.

The inventor does not claim to have discovered the manufacture of malleable iron in reverberatory furnaces, either with or without a portion of pig, or scrap, or refined iron, nor the advantage of pulverizing the ores and carbonaceous matter, but he claims, as his first improvement, the manufacture in reverberatory furnaces, in manner hereinbefore mentioned, of malleable iron, by means of ores and carbonaceous matter mixed in proportions, limited, as before, defined and combined with a portion of pig or refined iron. In his second improvement, he does not claim to have discovered the advantage of using a portion of clay or argillaceous iron stone in the manufacture of iron, from certain ores, that having long been done in the manufacture of pig iron from such ores, but he claims the use of clay as an ingredient to be employed in a pulverized state, mixed with certain ores and carbonaceous matter, also pulverized for the manufacture, both with or without pig and refined iron, of malleable iron in reverberatory furnaces. In his last improvement he does not claim to have first applied a portion of tap or flue cinder, or other siliceous oxide of iron with lime or carbonate of lime and rich iron ore, clay, and carbonaceous matter, all these have been long used in the manufacture of pig iron, but he claims the manufacture of malleable iron from the combination of those substances, pulverized (both with and without pig or refined iron in reverberatory furnaces) as before described.

DESCRIPTIVE NOTICE OF THE SILVER MINES AND AMALGAMATION PROCESS OF MEXICO.

By JOHN PHILLIPS, Esq. (Secretary of the Real del Monte Mining Company).
Some idea may be formed of the extent of the mining operations in Guanajuato, by the number of "haciendas de beneficio" which meet the eye on every side. Many of these establishments, however, are at the present time unemployed, the mines being much less productive than formerly.

In Zacatecas the mines have not been found productive at so great a depth as those of Guanajuato; and the veins being smaller, and the deposits of ore more within reach of an ordinary level, there are not the same reasons for holding out similar inducements to the working miner to work for ore at his own risk. Hence, most of the works of trial in the Zacatecas mines are carried on by the proprietors, and the miner is paid according to the quantity of ore he raises, this varying from 9 reals to 2½ dollars, or 4s. 6d. to 10s. per carga of 300 lbs., as circumstances may render necessary. Even in this district, however, it has lately been deemed expedient to introduce the system of Guanajuato into some of the mines. The instances known to me are those of the mines of San Clemente and San Nicolas, where the effect has been to increase the produce; but there is a peculiarity about these particular veins which renders such a system beneficial; they are very changeable, often separated into narrow branches, or showing mere threads of ore, and frequently again widening and yielding very rich bunches; besides which they are so cut up by cross-courses, that more than ordinary encouragement is needful to carry on works of research. The practice in the Real del Monte differs from both the others, but assimilates a little towards the Guanajuato system, inasmuch as the miner has a share of the ore, called "partido." This partido system has prevailed from a very early period, and has led to many broils and disturbances with the miners. In 1766, the Conde de Regla, whose mines were at that time unprofitable, made an attempt to reduce the rate of partido, which was then very high, being a fourth part of the smelting or richer kind of ore, besides other remuneration; but on proceeding to carry his wishes in effect, serious riots broke out amongst the people, during which the principal miner and the alcalde of Real del Monte were killed. In the year 1770, Don Pedro José de Leoz, who was deputed by the government to report upon the causes of the decay of mining in Pachuca and Real del Monte, speaks of the excesses which prevailed amongst the people; which he attributes, in a great measure, to the high wages they obtained under the partido system, causing them to be insolent and overbearing, and impatient of control. Since the Real del Monte Company commenced operations, the barrettero, or working miner, has received an eighth part of all the ore he raises, besides which, he is paid four reals or two shillings per day wages; and as the produce of the mines is tolerably uniform as regards the quality of the ore, it rarely happens that the earnings of the miner are at all excessive; and consequently the men are more quiet and orderly than their forefathers appear to have been in 1770.

The ore is separated by the men underground into two classes, the richer portion, called *Metal de Fuego*, being set aside for smelting, and the poorer, called *Metal de Azogue*, for amalgamation; and, after being raised from the mines by means of malacates, or by the steam-whim (for there is a very excellent whim worked by a steam-engine of 18-inch cylinder) it is carried to the mine yard, where it is divided by the superintendent of the ore yard, in the presence, and with the assistance of the men, every week. The miners take away and sell their eighth of the ore, and the remaining seven-eighths belonging to the mines, remain in the ore yard, where it undergoes the process of dressing and cleaning to prepare it for the reduction works. There is another way in which the people frequently realize something besides their regular pay. They term a mine *la bolsa de Dios*, or the purse that God has given, and say, that every man has a right to dip his hand in and help himself; and accordingly they act upon this principle, and avail themselves of every opportunity of stealing rich pieces of ore, in which they often succeed, notwithstanding high walls and guards, who search the people as they leave the mines. Indeed, they are perfect adepts in the business, and resort to all kinds of expedients to effect their object.

A story is told of one of our Cornish miners who, in the early days of the English Companies, had brought up a bag of very rich metal from one of the mines, and to make sure of his precious burthen until the person came whose duty it was to take it away, he placed it near the mouth of the mine and sat upon it. The sharp black eyes of the Mexicans, however, were upon him; their plan was quickly laid. A similar bag, filled with poorer ore, being placed in readiness, one of the confederates, as though by accident, trod upon the Englishman's toes, and followed it up with some impertinent remark, which excited his anger, and caused him to rise hastily from his seat to chastise the offender. Immediately the rich bag was removed, the other put in its place, and down again sat our friend. The ore was worth 200 dollars, or 40*l.* sterling, the other worth as many pence. The dismay of our countryman may be imagined when he afterwards discovered; but it was too late: his treasure had flown "over the mountains and far away."

[To be continued in next week's Journal.]

GOLD MINE IN AMERICA.—We are informed that a most valuable discovery has recently been made on the estate of an English gentleman in Franklin county, Virginia, where, according to our information, a gold mine, of surprising richness, was accidentally met with. We believe we shall shortly be in possession of some particulars, to which we shall readily give publicity.

RAISING SUNKEN VESSELS.—We are happy to perceive that the invention of Mr. Austin, which we noticed some short time since, as intending to apply the well-known principle of the buoyancy of inflated bodies, to the purposes of raising sunken vessels, is now practically illustrated, by model, at the Royal Polytechnic Institution. Mr. Phillips, the resident engineer, describes its principles and chief designs, and the success attending the experiments on a small vessel, previously sunk, appeared to elicit satisfaction. With the view of establishing the importance and feasibility of the objects of the Universal Salvage Company, we may mention, that operations for raising wrecked property are, at this moment, about being conducted in the United States; an enterprising company having been formed at Baltimore, and actually started for the island of Marquerita, near Cumana, with a vessel, diving-bell, submarine armour, and the various other equipments necessary for such an expedition, for the purpose of recovering a military chest and other valuable sunken in the Spanish 80-gun ship, which foundered in 1815, in ten and a half fathoms water. The hull lies on a hard sandy bottom, well known to the fishermen, and the Venezuelan Government has granted permission to search for treasure on condition of receiving 5 per cent. of all recovered; and, as she had the military chest on board, and treasure to a considerable amount, unless the armour, which is heavy, covers the money, so as to prevent removal, there appear to be fair hopes of realizing large profit.

We understand that an iron steamer of nearly 300-horse power has commenced being built by Messrs. George Lunell and Co., ship-builders and engineers, at Bristol, which is to embrace all the new improvements of the kind; she is to form one of the extensive fleet of the Bristol General Steam Navigation Company, who have steamers constantly plying between the above place and the various Irish and many other stations. This company have adopted the use of Smart's Elliptical Convex Propellers, and it is expected the vessel in question, having this much approved adaptation, will be the most perfect, will produce such a boat as may justly entitle them to the name they already bear, and rank them among the first builders of engineers in this or any other quarter of the globe.

INCREASING ADOPTION OF IRON.—We find that the preference for iron in the construction of vessels is daily becoming more general and decided. Our accounts from all quarters intimate this growing preponderance in favour of metal over wood; in Liverpool there are innumerable inquiries for iron vessels, both for sailing and steaming purposes, and the demand has within the last few weeks been so prepotent and incessant, that it entertains no doubts but that, at the close of the year, the greatest difficulty will be experienced in obtaining iron for ship-building. The iron market in Liverpool has been much excited of late, and pig-iron has been sold during the week at Glasgow, on 'Change, at 95*s.* net cash—the demand for consumption being very great—and, doubtless, will be much higher. The Low Moor Company, on Monday, made a general advance of 1*l.* per ton, and we hear that our accounts, published last week, respecting that and the Bowling Company having bought largely of Scotch pig-iron is incorrect. On the whole, the brightest prospects may be confidently entertained for the trade, and the difficulty will not now consist in the limited demand, but the inadequate supply in the market.

CHESTER AND HOLTHEDAY RAILWAY.—The contract for the first eight miles of Chester has been let to Mr. Bates, at 119,000*l.*; and Messrs. Hays and Cropper have the Penmaen Vach tunnel for 60,000*l.*; these contracts include a total amount of nearly 2000 yards tunnelling.

* From the Railway Register—continued from The Mining Journal of the 22d ult.

† The "partido," or miners' share, is at present one-third of the ore.